REPORT RESUMES

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A FIELD TEST OF THREE APPROACHES TO THE TEACHING OF SPANISH
IN ELEMENTARY SCHOOLS.
BY- NEWMARK, GERALD AND OTHERS
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TO HELP ADMINISTRATORS PLAN A SPANISH PROGRAM, AN 18-MONTH PROJECT WAS CONDUCTED TO EVALUATE THREE DIFFERENT METHODS OF TEACHING SPANISH TO SIXTH GRADERS. FOR THIS EVALUATION, SUCH INDEPENDENT VARIABLES AS STUDENT, TEACHER, CLASSROOM, AND DISTRICT WERE CONSIDERED, ALONG WITH DEPENDENT VARIABLES OF STUDENT ACHIEVEMENT IN DIFFERENT SKILLS. PART I OF THIS REPORT MEASURES THE THREE METHODS--TELEVISION INSTRUCTION, PROGRAMED INSTRUCTION, AND AUDIOLINGUAL INSTRUCTION BY A SPECIALLY TRAINED FOREIGN LANGUAGE TEACHER--TO DETERMINE IF THEIR OBJECTIVES WERE ACHIEVED. PART II COVERS CONCLUSIONS ABOUT THESE THREE METHODS BASED ON THE DATA COLLECTED, AND INCLUDES RECOMMENDATIONS TO SCHOOL DISTRICTS AND COURSE DEVELOPERS. COURSE OBJECTIVES, DATA ON STUDENT PERFORMANCE, SAMPLE QUESTIONNAIRES, AND REPORT FORMS ARE FOUND IN THE APPENDIXES. THERE ARE 144 TABLES THROUGHOUT THIS REPORT TO CLARIFY EVERY ASPECT OF THE PROJECT. ALSO INCLUDED IS A PROGRAM EVALUATION AND REVIEW TECHNIQUE ANALYSIS THAT REPLACES BAR CHARTS WITH A NETWORK TO SHOW THE INTERRELATIONSHIPS AMONG THE ACTIVITIES THAT LED TO THE COMPLETION OF THE PROJECT. (SS)

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A Field Test of Three Approaches To the Teaching of Spanish In Elementary Schools

Cooperative Research Project No. D-177

Final Report

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A FIELD TEST OF
THREE APPROACHES TO THE TEACHING OF SPANISH
IN ELEMENTARY SCHOOLS

Cooperative Research Project No. D-177

FINAL REPORT

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Project Responsibilities

This project was conducted jointly by the California State Department of Education and the System Development Corporation under USOE contract no. OE-4-10-272. The California State Department of Education had primary responsibility for the following activities:

1. General administration;
2. Preparation of instruments for the collection of data on independent variables;
3. Observation of project classes and collection of data;
4. Administration of tests;
5. Preparation of data for analysis;
6. Interpretation of results (with System Development Corporation).

System Development Corporation had primary responsibility for the following activities:

1. Content analysis of each language course;
2. Development of Spanish pretest and student attitude questionnaire;
3. Development of criterion tests;
4. Training of judges to evaluate speaking and writing tests;
5. Analysis of data;
6. Interpretation of results (with California State Department of Education).

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Patrick Herrera, Santa Monica Unified School District, Frank Almeida, and Melvin Smith, both of the Los Angeles Unified School District, served as the principal test item writers and contributed to the design of the tests and to the formulation of scoring and test administration procedures. Arnold Gallegos, Beverly Hills Unified School District, and Clark Jenkins, Office of the Santa Barbara County Superintendent of Schools, served as test item writers during the initial phase of the project. Mr. Herrera also directed the recording of all taped material and his was the principal Spanish voice on the tapes.

The following people served as judges of speaking and writing tests: Jose Pêrez, Ada Martinez, Mario Nuñez, Guido de la Vega, and Maria de Soto, all of the Defense Language Institute, Monterey; William Adorno and Steve Rivas, Beverly Hills Unified School District; and Pedro Lira, Los Angeles Unified School District.

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FIGURE

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CHAPTER I

INTRODUCTION

Nature of the Problem

The FLES movement (Foreign Languages in Elementary Schools) has been increasing throughout the nation for many years, and almost every state is seeking solutions to the difficult problems posed by a shortage of qualified foreign language teachers.

In California, the problem has become more acute since the state legislature made instruction in a foreign language mandatory for all students in the sixth, seventh, and eighth grades, beginning with the 1965-1966 school year. The shortage of qualified foreign language teachers is a serious obstacle to implementing the law satisfactorily.

All evidence at this time points to the fact that up to approximately age ten, a student's imitative learning powers are greater than his powers of analytic learning. After age ten, his analytic learning powers increase, whereas his imitative learning powers decrease. Consequently, the audio-lingual skills which are acquired primarily by imitative capacity should be well established in elementary school, particularly in the lower elementary grades.

With this has come the need for improving instruction at the elementary level. Since the resources, especially the availability of qualified teachers, are weakest at this level, a search has been made by many agencies for ways and means to implement effective instruction in the elementary grades. One of the efforts involves the recruitment and training of qualified language teachers. Other approaches largely involve materials which can be used by classroom teachers not trained as language specialists. This frequently means the use of new instructional media, such as television, programmed learning, films, and slides.

Foreign language materials are becoming available at a rapidly accelerated pace. The market for such materials has become fiercely competitive, and it has become increasingly difficult for teachers and administrators to choose methods and materials appropriate for their students' needs.

Criticism of foreign language programs and proposals for improvements are increasing in number. The relative validity of these criticisms, however, and the value of new proposals are generally undetermined. Objective and reliable data concerning various teaching methods and materials are few.

At present, in spite of many curriculum innovations, only a relatively small number of high school and college graduates succeed in acquiring the desired mastery of foreign language skills. One important reason is that course developers traditionally have had almost no objective baseline data on how much a given population of students can be expected to learn in a given time, under various learning conditions. Course objectives and course content usually represent gross estimates based on the developer's intuition. Meaningful articulation (which bases student progress from one sequence of instruction to the next on attainment of specified minimal levels of performance) has been lacking. Further, revisions of materials and procedures have rarely been based on detailed empirical data on student achievement.

Objectives of the Study

In June 1964, the California State Department of Education, aided by System Development Corporation, began an 18-month study to assess the effectiveness of examples of three different approaches to teaching Spanish to sixth-grade pupils. The three approaches were:

1. Instruction by television, consisting of three weekly 15-minute telecasts, with classroom follow-up by the regular elementary school teacher two times a week. (Course: Una aventura española (UAE),[1] prepared by Pasadena City Unified School District and published by Heath de Rochemont Corporation.)

2. Programmed instruction, consisting of self-instructional material used under supervision of the regular elementary school teacher. (Course: Spanish A (SPA), published by Encyclopedia Brittanica Films, Inc.)

3. Instruction by a qualified foreign language teacher using an audio-lingual course of study. (Course: Modern Language Association Teacher's Guide: Beginning Spanish in Grade Three (MLA), prepared by a national committee appointed by the Modern Language Association and published by the Educational Publishing Corporation.)

The three courses of instruction were selected because they were appropriate to a variety of school situations, that is, variations in resources, availability of trained teachers, financial support, access to technical facilities and provisions for specialized professional guidance.

The study was designed primarily to provide baseline performance data, and other information, to aid school administrators in decision-making and administrative planning related to initiating and conducting a foreign language program. Data from this study were intended to enable an administrator to relate the advantages and disadvantages of a particular set of instructional materials to the needs of his local school situation on the basis of: (1) his agreement with an explicit statement of objectives; (2) the effectiveness of the materials under specified conditions; (3) problems and difficulties experienced in using the materials; and (4) cost. Traditionally the administrator has lacked adequate data on anything but cost on which to base decisions.

In this field test, no attempt was made to compare one language course directly with another. Comparisons of this type are generally difficult to make and to interpret. (This would be especially true in this case since the language courses differed in specific objectives and course content. For example, the three courses shared only 55 Spanish vocabulary words in common out of a total of approximately 900.) The aim of the project was to evaluate the extent to which each course achieved its own objectives.

Further, it should be emphasized that the materials alone were not being evaluated, but rather the total learning situation. The major emphasis was not on evaluating how good the materials were, but on discovering under what conditions the objectives of a given language course were best achieved. In general, where only a small percentage of the total objectives of a language course are achieved by most students, it is not clear that the materials are primarily at fault. Student differences, teacher differences, and teaching procedures may also be contributing factors.

---

[1] Throughout this document the three courses will be referred to by their respective abbreviations.

In some cases, performance might be improved through modification of the materials; in other cases, through changes in teaching procedures or classroom organization. Where the learning conditions (e.g., total amount of instructional time, lock-step system) remain unchanged, it may be necessary to limit objectives (i.e., set up more feasible goals) if more students are to have a successful foreign language experience. However, changes are not likely to result in improved instruction if they are not based on explicit information concerning what students can and cannot do under various learning conditions. It was this type of information that the project was designed to obtain.

In addition to its purpose of aiding administrative planning and decision-making, the project has significance beyond the immediate geographic region, the specific content area, and the age group studied. Its wider significance stems from the use of an unconventional approach to the evaluation of instructional methods and materials--criterion-referenced testing. One of the purposes of this study was to investigate the feasibility of developing and administering such tests. A major objective was to determine how far the limits of comprehensiveness and objectivity in foreign language testing might be extended.

Chronological Overview

June 30 - September 30, 1964. During this period the staff of the project was recruited, and numerous meetings were held for the purpose of planning and implementing the work under the contract with the U. S. Office of Education.

One preliminary task was the linguistic analysis of each course of study used in the project and the development of pretest and attitude measurement instruments. These tasks were performed by the project subcontractor, System Development Corporation.

After the linguistic analysis of the three language courses was completed, a detailed list of course objectives (in terms of specific vocabulary, grammatical, and phonologic elements) was prepared for each language course. This list was revised after conferences with the authors of each course. The revised list was used as a guide in the preparation of the criterion tests. Part-time consultants were hired by the training staff of System Development Corporation to assist in the preparation, production, and pretesting of the criterion instruments.

The Spanish pretest of listening comprehension and instruments to measure students' pre- and posttraining interest and confidence in learning Spanish were developed.

Four regional field consultants--one covering the Sacramento and Central Valley area, one the greater San Francisco Bay area, one the greater Los Angeles area, and one the San Diego area--were appointed and began working. School districts were recruited to participate in the project. Participating districts made arrangements for the purchase of teaching materials and for reimbursement under Title III of NDEA. From a large number of districts that expressed interest in participating in the project, a proportionate stratified sample was selected. A total of 20 counties, 64 districts, and 214 schools were involved in the sampling.

Orientation sessions for teachers participating in the project were held by the field consultants. The pretest and the student attitude questionnaire were administered. A preinstruction teacher attitude questionnaire was also developed and administered.

October 1 - December 31, 1964. The processing of pretests and student and teacher attitude questionnaires for card punching was begun. The criterion tests for the midcourse testing were developed and printed, and tapes were prepared and duplicated. A student information form and a teacher background questionnaire were developed and administered. Class observation forms were developed and refined. Four regional meetings were held so that project teachers could confer with the authors of the materials and the research staff. The purpose of these meetings was to discuss the objectives of each of the three courses and classroom procedures to be employed.

Demonstration classes were established in all three courses to encourage visitation without disturbing the conduct of sample classes.

January 1 - March 31, 1965. Early in this period the midcourse tests were administered, and data processing was begun. The final criterion tests were developed and printed, and tapes were prepared and duplicated.

April 1 - June 30, 1965. Final criterion tests and postinstruction attitude questionnaires for students and teachers were administered. Still another questionnaire was designed and sent to district superintendents to determine the costs involved in implementing each of the three courses. Additional part-time consultants were employed for a period of two weeks to assist in the administration of the speaking tests. The four field consultants completed their terms of service on June 30th.

July 1 - September 30, 1965. During this period, the major activity involved the processing and card punching of data. Due to the magnitude of the card punching task, a subcontract for this purpose was initiated with the California State Department of Motor Vehicles. Upon the completion of card punching, System Development Corporation began analyzing the data from the listening and reading tests. The processing of the speaking tests was begun, and the judges were hired and trained to achieve the necessary interjudge reliability.

Klaus A. Mueller, co-principal investigator of the project, joined the staff of the University of California at Berkeley in September. For purposes of maintaining continuity, Mr. Mueller became a consultant to the project. Dr. Ray L. Sweigert, Jr., the research consultant with the project, assumed the role of co-principal investigator.

October 1 - December 31, 1965. Major activities consisted of the continued analysis of data and the scoring of the speaking and writing tests. A preliminary analysis was conducted using the results of the midcourse examination.

January 1 - June 15, 1966. The writing of those sections of the final report which did not depend upon the analysis of data was begun early during this period. The scoring of speaking and writing tests was finished.

Upon the request of Donald W. Johnson, Director of the project, the U. S. Office of Education granted an extension of time for the completion of project activities. This action was necessitated because the complexity of several activities involved greater amounts of work and, consequently, longer duration than was originally anticipated. The remainder of this period was devoted to the completion of data analysis and the preparation of the final report.

PART I.

METHODOLOGY

Chapters 2, 3, and 4 are concerned with the methodology of the study. Chapter 2 deals specifically with sampling procedures, data collection and data analysis. Chapter 3 is concerned with a description of independent variables and the way each was measured. Independent variables are subdivided into student, teacher, classroom, and district variables respectively.

Chapter 4 is concerned with dependent variables, that is, with student achievement in a variety of skills. This chapter contains a description of each of the subtests constructed for the study, the procedures employed in test construction, and methods of scoring the several tests.

CHAPTER II

PROCEDURES

Sampling of Classes

In an extensive field study such as this one, it is necessary to include a representative sample of all learners. To satisfy this requirement, a stratified random sampling procedure was used, with sixth-grade classes as the sampling unit.

A letter inviting participation in the Spanish Research Project was sent to all districts containing elementary grades. Of 766 districts in the state, 64 were sufficiently interested in the project to desire to participate. The nature of participation was also determined by the local school district. For example, a district could decide to initiate Spanish classes in any one or in any combination of the three Spanish programs being offered in the project. Furthermore, the actual classes and teachers were selected by the district. Within these limitations, however, every effort was made to secure a sample as nearly representative of the state as possible.

Stratification by District Variables

Districts were classified in terms of three variables which were presumed most likely to have an appreciable effect on instructional programs: the size of the district, in terms of average daily attendance in the elementary grades; the wealth of the district, in terms of the proportionate amount of state aid received; and the population density of the district, determined from 1960 census characteristics. Each of these variables was cut into a trichotomy.

The size of a district was designated as small, medium, or large. Small districts were defined as those with an average daily attendance at the elementary level less than 900. Medium districts were defined as those with an average daily attendance at the elementary level between 900 and 9,999. Large districts were defined as those with average daily attendance of 10,000 or more in elementary schools.

The wealth of a school district was determined by the kind of state aid received by the district, whether basic, equalization, or supplemental. Basic state aid is the minimum amount apportioned to each school district according to law; it depends only upon the average daily attendance.

Equalization aid is designed for those districts for which a combination of basic state aid and local tax support at a given tax rate falls below a "minimum acceptable level" of school support. Equalization aid is defined as the amount necessary to bring a district up to this "minimum acceptable level" of school support.

Supplemental aid is further state assistance to districts whose assessed valuation per unit of average daily attendance is below a specified amount. It is proportionate to the amount of tax in excess of a standard tax rate.

These three kinds of state aid provided a three-point scale for rating the wealth of the school district, with districts receiving only basic state aid as the wealthiest, those receiving both basic and equalization aid as moderately wealthy, and those receiving supplemental aid in addition to their basic and equalization allowances as the least wealthy districts.

The variable of population density was cut into a trichotomy forming metropolitan, urban, and rural categories. A metropolitan school district was defined as one located within a city having 50,000 or more inhabitants, or one located within one of two cities having contiguous boundaries (within 20 miles of each other) and constituting, for general economic and social purposes, a single community with a combined population of at least 50,000, the smaller of which had a population of at least 15,000. An urban school district was defined as one not qualifying as a metropolitan district, but which was located in a population center, incorporated or not, of 2,500 or more inhabitants, or one located in the densely settled urban fringe of a metropolitan center. Rural school districts were defined as all those that failed to qualify either as urban or metropolitan.

These three variables, size, wealth, and population density, were used to construct a twenty-seven-cell matrix which provided a basis for the stratification of school districts. The listing unit in the sampling was the sixth-grade class, and all of the classes that fell into a particular cell were enumerated. Table 1 shows the distribution of districts in the matrix.

The procedure used to select classes for the sample was a form of proportionate stratified sampling. The average daily attendance (ADA) in elementary grades for school districts throughout the state was computed for each cell in the matrix. For every five per cent of statewide average daily attendance in the elementary grades represented in a particular cell, one class was drawn randomly from those available. This procedure was designed to assure a sample as nearly representative of the statewide distribution of ADA in the elementary grades as possible. Table 2 shows the model distribution of sample classes based on this rationale of selection. For those cells in which less than five per cent of ADA was represented, no classes were drawn for the sample.

To allow for the possibility of attrition among sample classes, an alternate sample of classes was selected on the same basis as the primary sample. Alternate sample classes were used to replace sample classes that were dropped from the study for some reason.

A total of 337 classes were made available to the project in the 64 districts that volunteered. Of these, 210 classes selected instruction by UAE, 93 classes selected MLA materials, and 34 classes selected SPA. Table 3 shows the distribution of available classes according to district classification.

It is obvious that sampling was not possible in some cells. For example, the model distribution of sample classes called for one class from a small, rural district receiving basic state aid. It can be seen in Table 3 that there was only one class available using MLA and one using Spanish A. Consequently, no sampling was possible. However, there were five classes using UAE, making it possible to randomly select one of the five classes.

The model further indicated that five large, metropolitan classes receiving equalization state aid should be selected. It can be seen in Table 3 that there were only four such classes using SPA available. Thus the sample was of necessity short one class in SPA. For each of the other two courses, however, it was possible to select 20 sample classes distributed in accordance with the model.

It is obvious from the table that it was impossible to select a complete

TABLE 1

DISTRIBUTION OF SAMPLED DISTRICTS ACCORDING TO DISTRICT CHARACTERISTICS

Population Density	Size	Type of State Aid Received		
		Basic	Equalization	Supplemental
Rural	Small......	4	2	0
	Medium.....	0	2	2
	Large......	0	0	0
Urban	Small......	0	0	0
	Medium.....	0	4	5
	Large......	0	0	2
Metropolitan	Small......	1	1	0
	Medium.....	5	3	19
	Large......	1	4	9

TABLE 2

DISTRIBUTION OF CLASSES IN SAMPLING MODEL, ONE CLASS FOR EACH FIVE PER CENT OF STATEWIDE AVERAGE DAILY ATTENDANCE

Population Density	Size	Type of State Aid Received		
		Basic	Equalization	Supplemental
Rural	Small......	1	1	0
	Medium.....	0	0	0
	Large......	0	0	0
Urban	Small......	0	0	0
	Medium.....	0	1	2
	Large......	0	0	0
Metropolitan	Small......	0	0	0
	Medium.....	1	1	3
	Large......	0	5	5

TABLE 3

DISTRIBUTION OF CLASSES FROM WHICH THE SAMPLE FOR EACH COURSE WAS DRAWN, BY DISTRICT CHARACTERISTICS

Population Density	Size	Type of State Aid Received								
		Basic			Equalization			Supplemental		
		MLA	UAE	SPA	MLA	UAE	SPA	MLA	UAE	SPA
Rural	Small........	1	5	1	1	5	1	0	0	0
	Medium.......	0	0	0	8	0	1	2	0	0
	Large........	0	0	0	0	0	0	0	0	0
Urban	Small........	0	0	0	0	0	0	0	0	0
	Medium.......	0	0	0	5	6	2	5	16	2
	Large........	0	0	0	0	0	0	7	18	0
Metropolitan	Small........	0	0	2	0	3	0	0	0	0
	Medium.......	14	10	5	2	16	1	30	47	9
	Large........	0	7	0	8	11	4	10	66	6

alternate sample in any course of instruction except UAE. SPA in particular presented problems in this respect. Since only 34 classes using SPA were available for sampling, all of those not selected for the primary sample were considered as alternates.

Subsampling for Speaking Skills

The battery of speaking tests had to be administered individually to students. The length of the tests and the necessity for individual administration made it virtually impossible in the time available to give the tests to every student in the sample. Therefore, it was decided to select 10 per cent of the primary sample in each course to receive the speaking tests.

Class lists were used to make this selection. Through application of a table of random numbers, 60 students were selected from among those students listed.

It was not desirable, however, to subsample among classes using SPA because it was impossible to predict what students would finish the program by the end of the instructional year. As it turned out, only a little more than 10 per cent of the students in SPA classes finished the program, making it advisable to test all of them. This procedure introduced the bias of student "self-selection" into the results, yet to test students who had not finished the program was not considered practical or meaningful. From the standpoint of course objectives, it was not defensible to test students who had not finished the SPA program, since course objectives were specified only for students who covered all the material.

Attrition

During the year, a total of thirteen classes were lost to the sample, of which it was possible to replace eight.

In MLA, five classes were dropped from the sample, and three were replaced. All three of the MLA classes replaced were in the Los Angeles area. One of these was dropped very early because it turned out to be a combination fifth and sixth-grade class with relatively few sixth graders, some of whom had taken Spanish previously. The other two classes, both in the same district, were replaced quite late in the instructional year when it became apparent that there was an irreconcilable conflict between the district's policy regarding the length of time that could be devoted to testing and the length of time required for testing in the project. There was another sample class using the UAE course in this district which was dropped for the same reason.

In UAE, seven classes were dropped from the sample, and four were replaced. One of the television classes withdrew from the project because the district found it was unable to receive the UAE program properly. Still another UAE class was eliminated because it was found that most of the students had previously taken some Spanish. Four other UAE classes were dropped from the sample because they were located in an area in which the TV program was broadcast only twice a week, rather than the prescribed three times. One UAE class dropped was mentioned in the last paragraph.

Only one class in SPA was eliminated from the sample, and this was because the class was disrupted when new district boundaries were created and many of the students had to be transferred to a new school. This class was replaced.

In most cases where a class was eliminated from the sample, it was possible to substitute another class which was identical in terms of sampled characteristics. However, three of the UAE classes which were lost to the sample were not replaceable because they happened to fall in a category in which there was an insufficient number of suitable alternate sample classes. This was the category of large, metropolitan districts receiving equalization support from the state. There were two MLA classes as well that were lost to the sample so late in the year that it was impossible to replace them. These two were also in this same category of large, metropolitan districts receiving equalization support from the state.

Another kind of attrition which had to be dealt with was that of individual students who dropped out of sample classes. A related problem was what to do with students who transferred into classes. It was decided that where the number of students transferring in or out of a class was not abnormal, it would be retained in the sample, and the students who transferred in or out would be excluded from the analysis of data.

At the end of the year of instruction, there were 18 sample classes in MLA, 17 in UAE, and 19 in SPA. The shortages in UAE and SPA were all from large, metropolitan districts receiving state equalization aid. It has already been noted that there were only four classes in SPA available from districts of this type, and the three sample classes lost in UAE were not replaceable.

Methods of Data Collection.

For each method of instruction, data were collected on independent variables of student, teacher, classroom, and district characteristics, and on dependent variables of student achievement. A detailed discussion of the independent variables is given in Chapter 3; in Chapter 4 the dependent variables are treated in detail.

Collection of Independent Variable Data

Most of the data on student characteristics was collected by use of a student information form filled out by participating teachers. In addition, field consultants administered a pretest of Spanish listening comprehension and student and teacher attitude questionnaires to classes in their respective areas prior to the beginning of instruction.

Data on teacher background characteristics were obtained through a self-report form distributed to teachers late in the school year.

Data on classroom characteristics were recorded on observation checklists by the field consultants, who visited each classroom in their areas at intervals during the school year. A special class visit report form was used; each method of instruction required the use of a unique form, with data to be collected appropriate to that method.

District characteristics were discussed in the section on sampling procedures. Data on cost and time factors were collected through a questionnaire mailed to district superintendents.

Collection of Data on Dependent Variables

Student achievement in Spanish was measured in the middle of the year (midterm tests) and at the end of the year (final tests). The four field consultants administered all tests except in speaking. They were assisted in administering the speaking tests by other members of the project staff.

Midterm tests covered only listening comprehension and were administered in group settings. MLA and UAE teachers notified the field consultants when their classes reached the midpoint of the course, and the midterm tests were then administered. It was impossible for the field consultant to administer the SPA midterm to single students as they reached the middle of the program, so SPA teachers contacted the consultant when several students were at the midpoint, and the tests were administered to small groups.

The administration of all final tests, except speaking, was carried out in group settings at the end of the school year. Speaking tests were administered individually by field consultants, other project staff members as needed, and personnel from System Development Corporation. Due to the lengths of the various speaking tests, a subsample of UAE and MLA students and all 55 SPA students completing instruction were given these tests. (See page 12 for a discussion of the UAE and MLA subsampling procedures.)

Each student in the subsample received the full battery of four speaking tests in one day. If the tests had been administered over more than one day, there would have been the risk of absences, resulting in partial data. With this system, one test administrator was able to give tests to two students at one school per day. The testing was staggered between the two students to avoid excessive fatigue (i.e., while student A was taking the first test, student B was with his class; at the end of test 1, student A returned to class and B received test 1). This alternating procedure continued until all four tests were completed by all students. To further reduce the possibility of test fatigue, the test procedures included a one-minute rest period approximately every 15 items and a five-minute rest period about every 30 items; however, in practice, some test administrators allowed students to skip the rest period if they preferred to do so. There were several cases where students who could make very few responses to test items became upset. These tests were usually terminated before being completed.

All independent and dependent variable data were punched on data processing cards. Student responses to each item of the listening and reading tests were punched directly from answer sheets; writing and speaking responses were first analyzed by judges, and the judges' scoring of each item was then punched.

Methods of Data Analysis

After the data for independent and dependent variables had been collected, the following analyses were performed:

1. Summary statistics for each criterion-referenced test. The means and standard deviations for each test were computed, as well as the mean value as a percentage of the maximum possible score for a given test.

2. Frequency distributions for each test. The percentage of students who achieved within each decile interval was computed for each test.

3. Intercorrelations among all tests. For each method of instruction, an intercorrelation matrix was computed showing the interrelationships among all achievement tests. (These were product-moment correlation

coefficients.)

4. Correlations between independent and dependent variables. Tables of correlation coefficients were computed showing the relationships between independent variables (grouped as student, teacher, classroom, and district characteristics) and student performance on all tests. (These were product-moment correlations.)

5. Multiple regression analyses. Multiple correlation coefficients were calculated involving a number of different subsets of independent variables and all dependent variables. For each method of instruction the subsets were: (a) selected student variables; (b) selected teacher variables; (c) selected class variables; (d) variables from all three categories selected as a "good" subset by a computer program; and (e) variables from all three categories selected as an "interesting" subset by the experimenters. (These were product-moment multiple correlation coefficients.)

6. Analyses of student attitudes. Attitudes (interest and confidence) of students were measured before and after the year's instruction. Means and standard deviations were determined. In addition, the product-moment correlation between before and after measurements was calculated, and t - tests for differences between correlated means were computed for each attitude.

7. Analyses of individual test items. For every item in each test, the percentage of students responding correctly was determined.

8. Analyses of achievement by classrooms. For the UAE and MLA methods, means were calculated for certain independent and dependent variables within each class. Classes were ranked and compared.

Elimination of Students with Previous Spanish

Since this study was intended to gain information on achievement in Spanish from students who were naive in regard to the language, it was necessary to screen from the analyses those students who already possessed considerable knowledge of Spanish. Three measures of student characteristics could have been used as screening devices: amount of Spanish training the student had already received, whether or not the student was a native speaker of Spanish, and the student's score on the pretest of listening comprehension. After consideration of each measure, the pretest was selected because its content was most closely related to the objectives of the various instructional materials, making it the most valid discriminator between students who were and were not knowledgeable in Spanish.

A cutoff score of 50 per cent on the pretest was used to divide students into experienced and inexperienced categories. It was felt that any student scoring higher than 50 per cent (e.g., 31 or greater) already possessed much of the information to be covered during the year's instruction. Accordingly, those students who scored less than 31 on the pretest were included in the analyses of the results, and the rest were not.

A total of 101 MLA students and 39 UAE students were classified as experienced on the basis of the pretest. In order to determine whether these students differed from those classified as inexperienced within each method, the two groups were compared on a number of variables, such as intelligence, reading ability, age, and attitudes toward learning Spanish. In no case did the two groups differ, indicating that the inexperienced students, on whom all analyses were conducted, did not represent a biased sample of sixth graders.

Only two students among the 55 who completed the SPA course exceeded 50 per cent on the pretest. These two students were not eliminated from the analysis of the data since the SPA sample already was so small and the two students scored 32 and 33.

CHAPTER III

INDEPENDENT VARIABLES

Independent variables fell into three general categories: student, teacher, and classroom variables. Each will be defined, and its measurement discussed in turn.

Student Variables

All student variables, with the exception of whether or not Spanish was spoken regularly in the home, were measured in terms of information included in the student's cumulative folder on file in the school. A copy of the instrument used to record student data may be found in Appendix D.

IQ. IQ was considered to be a reasonable measure of mental ability. IQ scores from tests administered during the fifth grade as part of the state testing program were available. Schools were requested to report the results of intelligence tests in terms of IQ as such, rather than in terms of stanines, percentile bands, etc.

Because the short form of the California Test of Mental Maturity was used more widely than any other intelligence test, it was decided to administer the CTMM to students in those districts that had received some other test under the state testing program. By so doing, comparable intelligence test data were obtained for most students. Only IQ scores from the CTMM were included in the analysis.

Reading Grade Placement. Reading achievement was measured in terms of achievement tests given to fifth-grade students under the state testing program. The test used most frequently was the California Achievement Test. Other reading tests which were used by schools in the project were the Iowa Tests of Basic Skills, Metropolitan Achievement Tests, Sequential Tests of Educational Progress, Science Research Associates Achievement Tests, and the Stanford Achievement Tests. Reading achievement results were obtained in the form of grade placement scores.

Grade Point Average. Grade point average was measured in terms of the average of the subject letter grades (converted to a nine-point scale) received by the student in the fifth grade.

Parent's Occupation. To measure this variable, a modified Warner scale, using nine occupation categories, was used for both the student's father and mother. The scale was applied by the student's teacher in reference to occupational information about the student's parents included in the cumulative folder.

Previous Training in Spanish. In order to identify those students who had studied Spanish at some prior time, a scale was constructed to measure the amount of previous training that a student had received. The scale had four categories, from "at least two years of Spanish" to "no foreign language training."

Spanish Spoken in Home. It was considered important to know whether or not Spanish was spoken regularly in the student's home. Teachers obtained this information from the student.

Sex and Age. The student's sex and age in months were also recorded.

Interest and Confidence. Scales were devised to measure the student's interest in learning Spanish and his feeling of confidence that he was able to do so. Each scale contained five attitude questions and was administered both at the beginning of instruction and at the end, using the same questionnaire with appropriate changes in verb tense. A copy of the attitude measuring instrument for students may be found in Appendix D.

Teacher Variables

Teacher variables were measured by questionnaire, a copy of which may be found in Appendix D. The teacher's attitude toward teaching Spanish to sixth graders and perceived enjoyment in teaching a project class were measured both before and after instruction, using the same instrument with appropriate changes in verb tense. A copy of the teacher attitude questionnaire may be found in Appendix D.

Spanish Training. To measure the teachers' training in Spanish, a six-point scale was used, from "native language is Spanish" to "no academic training in a foreign language."

Experience Teaching Spanish. This variable was measured by a four-point scale, from "at least five years' experience as instructor in the speaking of Spanish" to "no experience as instructor in the speaking of a foreign language."

Fluency in Spanish. This was measured on a three-point scale: "little or no fluency," "some fluency," and "native or near-native fluency."

Age and Sex. The teacher's age was measured in decades ("20s" through "60 or more"), and sex was recorded.

Attitude Toward Teaching Spanish to Sixth Graders. This variable was determined by a four-point scale, from "it is extremely worthwhile" to "it should not be undertaken."

Perceived Enjoyment in Teaching a Project Class. This variable was measured by a five-point scale, from "very much" to "not at all."

Classroom Variables

Whereas the student and teacher variables were relatively easy to choose and to measure, the selection of appropriate classroom variables and the construction of indices was a more difficult task.

Measurement of classroom variables began with preliminary observations by the field consultants and the construction of an observation checklist from these data. The observation checklist was revised once. Subsequently, the field consultant filled out a copy of the checklist for each visit to a class.

Field consultants were instructed to visit each class about once every two weeks. After the first one or two visits, the field consultant would drop in unannounced to see the class, unless the local school administration objected to unannounced visits.

At the end of the instructional year, the observation checklists for each class were used in the completion of a composite class visit report intended to reflect the central tendency of the periodic observations. Some of the classroom variables measured were common to more than one course of instruction. Others were peculiar to a particular methodology. Copies of the class visit report forms for each course may be seen in Appendix D. Only those factors are discussed here on which there was sufficient variability for analysis. Non-variable classroom factors may be identified through examination of the class visit report forms.

MLA Classroom Variables

Use of Supplementary Materials. Teachers were requested to adhere as closely as possible to the course guide, but were given the freedom to introduce other materials if they perceived a particular need. The use of materials to supplement the regular program was measured on a nominal scale, i.e., either the teacher used supplementary materials at some time during the instructional year or she did not. This scale was applied separately to a number of different types of materials as listed below:

1. Visuals
2. Records or tapes
3. Songs or games
4. Films or film strips
5. Text materials
6. Tests

Teacher's Use of English in the Spanish Class. This was a measure of how often the teacher spoke English in the Spanish class, recorded on a four-point scale from "rarely" to "almost always."

Students' Use of English in the Spanish Class. To measure the frequency of the students' use of English during the Spanish lesson, a four-point scale from "rarely" to "almost always" was used.

Teacher Serves as Speaking Model for Spanish. This was a measure of the frequency with which the teacher modeled Spanish utterances for the students. Alternatives to teacher modeling, of course, were to rely on records or on students, particularly students whose native language was Spanish. This variable was measured through use of a five-point scale from "almost always" to "never."

UAE Classroom Variables

The following classroom variables were measured for UAE classes.

Warm-up Sessions. The course guide prescribed a warm-up session prior to each Spanish telecast. This variable was measured on a nominal scale, i.e., whether or not the teacher usually held a warm-up session prior to the telecast.

Follow-up Sessions. A follow-up session after the Spanish telecast was also prescribed by the course guide. This variable also was measured on a nominal scale.

Student Participation. This was a measure of the proportion of the class that answered the television instructor when she called for choral responses, recorded on a four-point scale from "most of the class" to "none."

Teacher Response to TV Instructor. This was a measure of whether or not the classroom teacher generally responded along with the students in drill conducted by the television instructor. It was recorded on a nominal scale ("yes" or "no").

Teacher's Use of English in the Spanish Class. On days when there was no Spanish telecast (every other day), the classroom teacher conducted a review of previous lessons. A measure was taken of the frequency with which the teacher spoke English during this review. It was recorded on a four-point scale from "rarely" to "almost always."

Students' Use of English in the Spanish Class. This was a measure of the frequency with which the students used English during the Spanish lesson on days when there was no Spanish telecast. It was recorded on a four-point scale from "rarely" to "almost always."

Teacher Serves as Speaking Model for Spanish. This was a measure of whether or not the classroom teacher modeled Spanish utterances for the students during the Spanish review session on days when there was no telecast. It was recorded on a nominal scale ("yes" or "no").

SPA Classroom Variables

The following classroom variables were measured for SPA classes.

Use of Supplementary Materials. The use of materials to supplement the regular program was measured on a nominal scale, i.e., either the teacher used supplementary materials at some time during the instructional year or she did not. This scale was applied separately to a number of different types of materials as listed below:

1. Visuals
2. Songs or games
3. Films or film strips

Other Activity in Classroom During Spanish Lesson. This was a measure of whether or not there was usually other activity going on in the classroom while some students were using the programmed materials. It was recorded on a nominal scale ("yes" or "no").

Teacher Supervision of Students Using Materials. Also measured on a nominal scale, this variable referred to whether or not the classroom teacher supervised the students using the programmed materials.

Availability of Tape Recorders. This was a measure of whether or not the students had access to tape recorders and materials other than during the regular class sessions. It was recorded on a nominal scale.

Use of Display Sessions. Classroom teachers were advised in the course guide to hold display sessions for small groups of students who had reached approximately the same place in the program. These sessions were to provide opportunity for the students to demonstrate and reinforce their newly acquired language skills. This variable was a measure of the frequency with which display sessions were held. A three-point scale was used: about once a week; about once every two weeks; about once a month or less.

District Variables

District variables of size, wealth, and population density were discussed in Chapter 2 in relation to the stratification of classes for sampling. The size of the district in terms of elementary ADA and the wealth of the district in terms of the type of state aid received were statistics readily available in the California State Department of Education. Population density was taken from census data.

CHAPTER IV

DEPENDENT VARIABLES

This chapter describes the tests and testing procedures developed for use in the project.

Rationale for Criterion-Referenced Testing

The criterion-referenced testing approach used in this study represents a basic departure from the usual normative testing methods. Normative testing samples from the content of a subject matter area and yields a relative rating of overall student performance. This approach, as typified by present-day standardized exams and teacher-constructed classroom tests, indicates that one student is more or less proficient than another but provides little information about (1) how much of the total content of a course of instruction was achieved by any of the students, (2) which specific objectives each student achieved, and (3) how realistic the course objectives were for the conditions under which instruction took place.

In contrast to normative testing, the aim of the testing in Project D-177 was to measure the total linguistic objectives of a foreign language course (i.e., every lexical and grammatical element which the course authors expected the student to control at the end of the instructional period). This approach, which has been called criterion-referenced testing,[1] depends on an absolute standard of quality as contrasted with norm-referenced testing which depends on a relative standard. Unlike normative testing, in which the difficulty level of items is manipulated deliberately to produce a wide distribution of scores, criterion-referenced testing seeks to discriminate between studnets who have had a specific training and those who have not had that training. No attempt is made to arbitrarily maximize discriminations among students who have all had the same training.

Criterion-referenced tests were not viewed as an aid for comparing different instructional methods, but as a tool for improving any instructional course--a tool capable of providing more extensive and precise data on which to base revisions of materials, preparation of new materials, changes in teaching procedures or learning conditions, and changes in course objectives.

Criterion-referenced testing, in providing more explicit and extensive data on the extent to which stated course objectives have been achieved, can furnish: (1) an important index for determining how serious the need for change is; (2) a point of departure for systematic attempts to determine what to change; and (3) a sound basis for effective articulation of instruction.

Criterion-referenced testing, however, is much easier said than done, especially in the area of foreign language instruction, where objectivity in testing the speaking skill has been a particular problem. As far as can be determined, the California Spanish Research Project D-177 is the first application of the technique of criterion-referenced evaluation to a large scale field test. As a pioneering effort, one of the purposes of this study was to investigate the feasibility of developing and administering such tests. Within the existing time constraints (the project was funded in June 1964, and all tests for the three language courses had to be ready for administration by May 1965), we wished to see how far we could extend the limits of comprehensiveness and objectivity in foreign language testing. The results of this effort--the problems as well as the products--are discussed in the following pages.

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[1] Glaser, Robert. Instructional Technology and the Measuring of Learning Outcomes: Some Questions, American Psychologist, August 1963, 18 (8), 519-521.

Description of Tests

The tests were designed to measure achievement in the four basic language skills which the students were expected to acquire (i.e., listening comprehension, speaking, reading, and writing) at the end of the first year of language instruction. All three language courses were part of a continuing sequence of instruction that went beyond the first year. MLA, SPA, and UAE had listening comprehension and speaking as objectives, but differed in specific content and emphasis. MLA and SPA had both vocabulary and grammar objectives during the first year. UAE emphasized vocabulary and expressions in the first year, introducing specific grammatical objectives in the second year. Only SPA taught reading and writing in the first year.

The tests were concerned mainly with the two important ingredients of the basic language skills: control of vocabulary and of grammatical structure. The aim was to accomplish this measurement in a highly objective manner which would provide data that was both useful and easily interpretable. To meet this objective, it was necessary to isolate each component of language proficiency for individual evaluation (that is, the four basic skills, and vocabulary and grammar within each skill, were tested independently of each other).

For each of the four skills, a separate test was developed in which the influence on performance of any of the other skills was either greatly reduced or completely eliminated. For each skill, there were separate tests for vocabulary and grammar in which one aspect was held constant while the other was tested. Pronunciation was tested independently of the other aspects of speaking. In the vocabulary and grammar tests only one word or grammatical element was tested per test item. Any errors in the student response not affecting the element being tested were ignored in the scoring. Each test item was scored as right or wrong. A scoring system was developed for the oral grammar test which attempted to change the judge's role from subjective decision-making to objective rule-following.[2]

Since each test item represented a course objective, the total number of correct responses (i.e., the student's final score) was a measure of the total number of specific vocabulary or grammar objectives achieved for each skill.

The tests in this project were designed to evaluate control of vocabulary and structure under certain limited conditions. Conversational fluency was not being evaluated. The final scores, therefore, do not permit judgments about a student's ability to comprehend or to carry on a sustained conversation in Spanish. No tests were developed to evaluate cultural and other course objectives (e.g., learning of songs, memorization and performance of dialogues). It should be noted that learning of songs and verses was an important objective of UAE in the first year. It was not evaluated because of the lack of time to develop appropriate instruments and procedures.

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[2] The scoring procedures for all tests and the role of the judge in scoring the speaking tests are discussed in detail on p. 41.

The specific tests developed for each language course are listed in Table 4. The fact that the same aspects of each language skill (e.g., vocabulary, grammar) were not tested for each language course, reflects differences in specific objectives of the courses. Although the same test format and scoring procedures were sometimes used for more than one course, the content of the tests was different in all cases. Thus there were 28 different tests, 8 for MLA, 16 for SPA, and 4 for UAE.[3]

In addition to the criterion tests, an attitude questionnaire was prepared. It was administered before and after instruction in an attempt to measure the effect of instruction on the student's interest in learning Spanish and on his confidence in his ability to learn this language. The same questionnaire was used for all three language courses. In the remainder of this section, the individual tests are described in detail.

Listening Comprehension Tests

Listening comprehension refers to the ability of the student to respond appropriately when presented with an audible Spanish utterance.

Recognition of vocabulary and grammatical signals was tested separately. The grammar test evaluated control of both syntax and morphology. Syntax regers to sentence formation--the sequence and arrangement of words to make up larger units of speech such as phrases, clauses, and sentences. Morphology refers to word formation--the types and arrangements of stems and affixes that make up words. The grammar transfer test dealt only with syntax. It tested the same syntax patterns as the grammar test, but where the latter used Spanish stimuli taken directly from the course content, the former used a recombination of these stimuli. Instructions and test items were presented to the students by tape recorder to insure uniform conditions of test administration. The voices on the tapes were those of native speakers of Spanish, speaking at a normal rate of speed. The amount of time provided for student responses was intended to give all students an adequate opportunity to answer every item. The time varied for each item, ranging from 7 to 10 seconds. Initially, these times were based on the length and type of stimulus and of response alternatives from which the student had to select. The times were revised on the basis of experimental tryouts of the items. Following is a detailed description of each of the tests.

1. Listening Comprehension Vocabulary Tests (MLA, SPA, UAE).[4]

    a. Stimulus characteristics.

    Each item consisted of a single Spanish utterance taken from the language course. Only one word was tested in each item. Each Spanish utterance was spoken twice.

    b. Response characteristics.

    The student responded by selecting from multiple choice answers in a test booklet. Either pictures or printed English alternatives were used in vocabulary test items.[5]

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[3] A complete set of tests, answer booklets, instructions for administering and scoring guides for speaking and writing tests is available in a supplement to the final report of the project.

[4] The courses in parentheses are the ones for which a test was developed.

[5] See page 29 for discussion of rationale for using English alternatives.

TABLE 4

LIST OF TESTS

Test	Language Course*		
	MLA	SPA	UAE
Listening Comprehension			
Vocabulary	X	Y	Z
Grammar	X	Y	
Grammar Transfer	X	Y	
Speaking			
Expression			Z
Vocabulary	X	Y	
Grammar	X	Y	
Grammar Transfer	X	Y	
Pronunciation			
Mimicry	X	Y	Z
Constructed Response	X	Y	Z
Oral Reading		Y	
Reading Comprehension			
Vocabulary		Y	
Grammar		Y	
Grammar Transfer		Y	
Writing			
Vocabulary		Y	
Spelling		Y	
Grammar		Y	
Grammar Transfer		Y	

*Each letter (X,Y, or Z) indicates that the test was developed for the language course indicated. The letters X, Y, and Z are used to indicate that the tests of a particular skill were different for the three courses.

(1) Test items using picture responses.

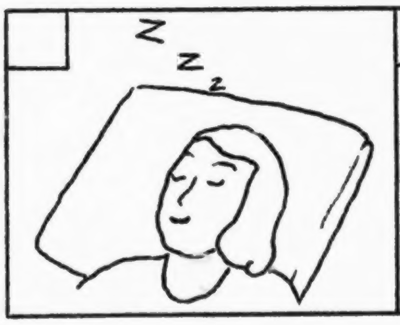
Pictures were used for every lexical item which could be tested by this means (37 percent in MLA, 50 percent in SPA, and 57 percent in UAE); all other items used printed English alternatives. Most of the words tested by pictures were concrete nouns, action verbs, and descriptive adjectives. All pictures were pretested with English stimuli.

The student had four possible choices--the first three were pictures and the fourth was "I don't know." The student was told that one of the three pictures was always correct but that if he had no idea which was the right answer he was to choose the fourth alternative. The "I don't know" option was added to avoid long delays in responding when the student was in doubt.

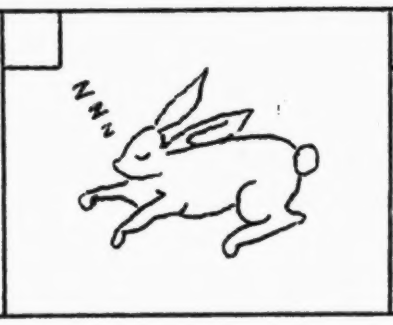
Sample Item

The underlined word in the Spanish utterance, meaning "man," was being tested. The Spanish stimulus heard by student was "El hombre duerme." The response choices were:

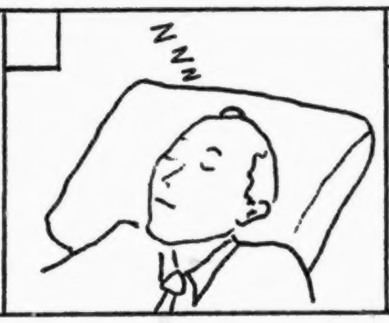
A



B



C



D

I don't know.

(2) Test items using English responses.

The student had to select the English sentence which was nearest in meaning to the Spanish he heard. There were four choices--A, B, and C were possible correct answers and D was "I don't know."

The choices represented the exact same grammatical pattern and included the same vocabulary except for the one word being tested. Each item was so designed that a correct response depended on the student's comprehension of the single word being tested.

Sample Item

The underlined word in the Spanish utterance, meaning "We have," was being tested. The Spanish stimulus heard by student was "Tenemos un gato." The response choices were:

a. We want a cat.
b. We have a cat.
c. We see a cat.
d. I don't know.

2. Listening Comprehension Grammar Tests (MLA, SPA).

   a. Stimulus characteristics

      Each item consisted of a single Spanish utterance taken from the course of study. Only one grammatical element (either syntax or morphology) was tested in each item. Each Spanish utterance was spoken twice.

   b. Response characteristics

      The student selected from three printed English sentences the one which most nearly approximated the meaning of the Spanish utterance or indicated that he didn't know the answer.

      In order to make sure that the alternatives forced a decision based on the grammatical point being evaluated all other aspects of the choices (vocabulary and morphology or syntax) were kept as constant as possible.

Sample Item: Syntax

The item tested for recognition of correct word order within the following pattern: noun phrase as subject, transitive verb, noun phrase as direct object. The Spanish stimulus heard by the student was: "Los niños tienen mi oso." The response choices were:

a. My bear has the little boys.
b. They have my little boy's bear.
c. The little boys have my bear.
d. I don't know.

Sample Item: Morphology

The item tested for recognition of the third person singular form, present tense, of the verb "salir." The Spanish stimulus heard by the student was: "Sale de la casa." The response choices were:

a. We're going out of the house.
b. I'm going out of the house.
c. He's going out of the house.
d. I don't know.

3. Listening Comprehension Grammar Transfer Tests (MLA, SPA).

   Each item tested a syntax pattern included in the grammar test; however, in the transfer test the Spanish utterance was not taken directly from the course. All of the lexical and grammatical elements, were in the course but not necessarily in the form used in this test; in all other respects, the grammar transfer test was exactly the same as the syntax part of the grammar test.

4. Remarks Concerning Listening Comprehension Tests (Vocabulary, Grammar and Grammar Transfer).

   a. Difficulty level and discrimination power of test items.

Distractors (i.e., incorrect response choices) were selected on the basis of their effectiveness in discriminating among students who had undergone Spanish instruction and those who had not received any Spanish instruction. The aim was to make it as simple as possible for students who had taken the Spanish course, and knew the material, to answer the items correctly, while making it as hard as possible for students who had not received the Spanish instruction to obtain correct answers. Consequently, fine discriminations (e.g., minimal contrasts), which could have increased the difficulty level for students who had received the Spanish instruction, were not used. The following is an example of the type of distractor found to be most appropriate for the purposes of this project: In testing the word CARNE (meaning "meat"), a picture of a "car" was a good distractor for the "non Spanish" students but did not cause difficulty for the Spanish students.

b. Control of vocabulary in grammar items.

Keeping the vocabulary constant in all the response alternatives was generally not a problem in items testing morphology. However, in testing syntax, it was frequently very difficult to find a third alternative in which the English was not somewhat awkward. Much effort was expended in revising these third alternatives; however, it was not possible to eliminate all awkward options. Nevertheless, experimental tryouts indicated that these incorrect alternatives were chosen by non Spanish students and therefore did serve to discriminate between them and students who had studied Spanish.

c. Pretesting picture items in vocabulary tests.

Many of the pictures, whose meanings initially seemed perfectly clear, were found to be defective when paired with English stimuli and tested on sixth-grade pupils. Many items had to be revised several times, and very close contact with the artist was necessary to obtain simple and unambiguous pictures.

d. Presenting the Spanish stimulus twice.

The spoken Spanish stimulus was presented twice to ensure that each student had an adequate opportunity to hear the stimulus. Experimental tryouts showed that students were sometimes thinking about the previous item, when the new stimulus was first presented, and therefore did not hear it the first time. Also, noises in and outside the classroom sometimes distracted students, causing them not to hear the stimulus the first time.

e. Spanish voices on the test tapes.

During the first year of instruction, UAE students were exposed mainly to a female Spanish voice (non Castilian). The UAE Spanish test tape was recorded by a male voice (non Castilian). The SPA programmed instruction tape mainly used a male Spanish voice (Castilian). The SPA test tape was recorded by a female voice (Castilian). The switch in voices on the two test tapes was due to the availability of Spanish speaking personnel during the recording phase of the project. This is a possible test limitation; however, the course authors did not believe that the change in voice would cause undue interference.

f. Use of English in response alternatives.

Within the foreign language field there is neither general agreement nor experimental evidence on the proper use of English in teaching and testing.

Early in the planning stages of the test development, the project's evaluation consultant raised some objections to the use of English. However, after considering the different possible response alternatives, multiple-choice responses in English appeared to represent the simplest, most direct method of enabling students to indicate their comprehension of the Spanish they heard. It also provided an effective means for controlling vocabulary and grammar so that responses could be clearly related to knowledge of one particular linguistic element.

The SPA programmed instruction used English to a considerable degree. English equivalents were provided in the UAE teacher's guide for all Spanish utterances and dialogues. The MLA teacher's guide did not contain English equivalents of the Spanish course content. The extent to which English was used in conducting the latter two courses is not known, but observations by field consultants suggested that this varied considerably from class to class. The authors of all three courses agreed that the task of recognizing the English equivalent of Spanish utterances was within the behavioral repertoire of the students. They did not anticipate any special difficulties.

The following response modes for test items were considered and rejected:

(1) Printed Spanish alternatives.

This would have enabled the student to stay in one language. However, for two of the courses (MLA and UAE) it was not possible because the students had not been taught to read Spanish. It was not used in the third case (SPA) because it would have meant testing reading and listening comprehension in combination, making interpretation of the results difficult (i.e., if a student missed an item, was it due to his not understanding the Spanish he had heard or the Spanish he had read?). If an overall score was desired for comparing students on their combined listening-reading ability, this type of item would have been satisfactory. However, for the purpose of this project, it was not appropriate.

(2) Multiple-choice auditory responses in Spanish.

Another way of staying in the target language would have been to have the Spanish stimulus utterance followed by three oral responses in Spanish, with the student selecting the response representing the most appropriate reply to the stimulus. There are several problems with this type of item. If the student chooses incorrectly, it is not certain whether he missed something in the stimulus or in the response. This type of item also places a great burden on auditory memory. The student must recall the stimulus each time he hears a new response and compare it with each response.

(3) Picture responses.

In the vocabulary test, pictures were used extensively to test concrete nouns, action verbs, and descriptive adjectives. The problems associated with using pictures for testing abstract nouns and discrete grammatical points were too complex to solve within the time period available for developing the tests.

g. Midterm vocabulary and grammar tests.

Listening tests covering the content taught during the first half of the course were administered after the students had completed the appropriate lesson (i.e., MLA lesson 7; SPA lesson 30; UAE lesson 45). When the students had completed the entire course, these tests were re-administered as the first half of the final tests. The purpose of testing the students twice on the same material, at two different time periods, was to provide a basis for answering the following question: As new material was introduced during the second half of the course, was the students' control of first half content maintained, reduced, or increased?

Speaking Tests

For the MLA and SPA courses there were separate grammar, vocabulary, and pronunciation tests. For the UAE course, there were separate tests to evaluate control of Spanish expressions and of pronunciation. The speaking grammar test evaluated control of both syntax and morphology. The grammar transfer test covered only syntax. It tested the same syntax patterns as in the grammar test but under different stimulus-response conditions. For all three courses pronunciation was tested in two contexts--mimicry and constructed response. For SPA there was also an oral reading pronunciation test. As with the listening comprehension tests, the amount of time provided for student responses was intended to give all students an adequate opportunity to answer every item. The time varied for each item, ranging from 8 to 15 seconds. These times were based on experimental tryouts of the tests.

1. Speaking Grammar and Grammar Transfer Tests (MLA, SPA).

a. Speaking grammar test.

In attempting to evaluate the student's control of discrete syntax patterns and morphological forms, under specified conditions, there were four main problems:

(1) How to minimize the effect of insufficient control of vocabulary in trying to ascertain whether the student controlled the pattern (i.e., how to ensure that a student did not respond incorrectly because of failure to recall a vocabulary item, rather than because of insufficient control of the pattern).

(2) How to separate listening comprehension from speaking. If the student responded incorrectly to a Spanish stimulus, it might have been a case of not understanding the stimulus rather than not controlling the grammatical element called for in the response.

(3) How to ensure that the student responded to the Spanish stimulus, in each item testing a single linguistic element, with an utterance containing the element being tested rather than an acceptable variant.

(4) How to minimize or eliminate factors of imagination, or ability to think of a reply, when an oral, constructed response to an oral stimulus was required.

The following procedures were developed to solve these problems: The student response in Spanish was under the control of English instructions and a Spanish stimulus presented by a tape recorder. The student was first told in English what his response in Spanish should be. These instructions were repeated twice. The student then heard the Spanish stimulus, which contained all the Spanish words which he needed for his response. (The student was told this in advance to encourage him to make use of this vocabulary aid.) The Spanish stimulus was repeated twice before the student attempted his response. All student responses represented utterances taken directly from the language course. The Spanish stimulus was generally not the exact one which was used to elicit the student response in the course. Student responses were recorded on a second tape recorder for subsequent evaluation by independent judges. Tests were administered to one student at a time.

Sample Item

The following item was used to test for agreement between the masculine singular subject and the predicate adjective: The student heard:

"Your teacher will say: The ball is yellow. What color is the pencil?"

"You say: The pencil is yellow."

"La pelota es amarilla. ¿De qué color es el lápiz?"

Responses accepted as correct were:

El lápiz es amarillo; es amarillo; amarillo.

To receive credit, underlined features of the acceptable responses had to be correct.

The following item tested for position of adjective: The student heard:

"Your teacher will say: Paco has a book. It's blue."

"You say: Does Maria have a blue book?"

"Paco tiene un libro. Es azul."

Responses accepted as correct were:

Libro followed by azul or any descriptive adjective; libro or any noun (except a proper name) followed by azul.

b. Speaking grammar transfer test.

The format of this test was the same as the syntax section of the grammar test. All the syntax patterns tested in the grammar test were tested again. This time, however, the Spanish stimulus did not include all the vocabulary needed by the student for his response.

c. Remarks on speaking grammar and grammar transfer tests.

(1) In items testing control of word order in simple declarative patterns, the question was raised whether incorrect responses were possible, considering all the help contained in the English and Spanish stimuli and the number of responses which were acceptable. For example, the item below tested control of word order in the following pattern: noun phrase as subject, verb "to be," noun phrase as predicate nominative. The student heard:

"Your teacher will say: Is Paco a dog or a boy?"

"You say: Paco is a boy."

"¿Es Paco un perro o un niño?"

Responses accepted as correct were:

Paco es un niño; Paco es un perro; Es un niño; Es un perro.

Nevertheless, incorrect responses, indicating lack of control of the pattern, did occur. They included responses such as the following: Paco niño; Un niño es Paco; Es Paco niño.

(2) Each student response was scored twice, first on discrete grammatical elements and then on the entire utterance. When evaluated on the entire utterance, only a completely error-free response was scored as correct (e.g., in the example above, Es un perro and Paco es un perro would have been incorrect).[6]

(3) Experimental tryouts of the tests indicated that items involving indirect discourse (e.g., "Tell John that you are tired"), were frequently ambiguous and resulted in erroneous responses (e.g., "You are tired" instead of "I am tired") even where students had considerable experience with directed dialogue in their training. Direct discourse ("your teacher will say;" "you say") proved more effective.

(4) Experimental tryouts of the tests showed that students had a better set for responding to the Spanish stimuli when different voices were used for the English and Spanish parts of the items. Consequently, in the MLA test, a female voice presented the English instructions and a male voice gave the Spanish stimuli. The reverse was true for SPA; a male voice presented the English and female voice gave the Spanish.

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[6] The scoring procedures are discussed in detail on p. 41.

2. Speaking Vocabulary Tests (MLA, SPA).

a. Description.

This test was designed to see how many of the Spanish words taught in the course of study could be recalled and pronounced sufficiently well to be comprehensible to a native speaker of Spanish. The student was asked to use the word being tested in a minimal context (i.e., shortest utterance in which word was used in the course), to minimize interference from deficiencies in other aspects of Spanish or from lack of knowledge of other vocabulary. The student response was under the control of an English stimulus. The student heard an English utterance twice and was asked to respond orally with the approximate Spanish equivalent. For example, the student heard: "It's a table" and was expected to respond "Es una mesa." "It's a" followed by a noun was usually used as the stimulus with concrete nouns. Where the student response required several words, the student was encouraged to say as many words as he knew (i.e., make an incomplete response rather than say nothing). For example, in an item testing the word "quiere," the English stimulus was: "He wants the book." If the student responded with "quiere" but omitted "libro," he still received credit for a correct response. The English stimulus was repeated twice. Student responses were tape-recorded for later evaluation.

b. Remarks on the speaking vocabulary tests.

(1) In the vocabulary test the oral Spanish response was under the control of an English stimulus. This represented an important limitation as far as the MLA course was concerned. Although English may have been used in MLA to establish the meaning of Spanish words, it was probably rare that English was used to elicit a Spanish utterance. The students' use of new vocabulary was generally under the control of Spanish stimuli such as "¿Qué hace?" for verbs and "¿Qué es esto?" for nouns. Further, the MLA guide did not provide, in either the lesson exercises or in the index, English equivalents for Spanish vocabulary. Consequently each teacher presented his own version. Since several acceptable variants were possible, students may have had difficulty providing the correct Spanish response for an English expression not used in their class. For example, the word "¡Cuidado!" on the test is elicited by "Watch out!"; yet, many teachers may have related "¡Cuidado!" to "Be careful!" in their classes.

(2) In the SPA course, oral Spanish responses were frequently under the control of English stimuli. Since all English stimuli in the SPA vocabulary test were taken directly from the course, there was no problem with acceptable variants.

(3) Pictures could have been used as stimuli in many cases (especially for concrete nouns), but there were several limitations. For example, a picture of a horse might have elicited the responses "animal" or "horse." A picture of a cowboy might have elicited the responses "cowboy," "rancher," "man," "sheriff," etc. Time did not permit a thorough investigation of the use of pictures in the speaking tests.

3. Speaking Expression Test (UAE).

In this test, the student's control of Spanish expressions was evaluated. The concern was not with either discrete vocabulary or grammatical elements, but rather with the use of expressions to convey meaning. Consequently, different expressions were tested which sometimes represented the same grammatical patterns. Grammatical errors were ignored as long as the meaning of the utterance was not changed or made ambiguous.[7] Pronunciation errors were ignored as long as the utterance was comprehensible to a native speaker of Spanish.

The test was divided into two parts to reflect the fact that the students were expected to control the expressions under different conditions. In Part I the student was presented with an English stimulus and asked to respond orally with the Spanish utterance that meant approximately the same thing.

All items began with the English instruction, "How would you say in Spanish?" For example, the student heard the following from the tape recorder: "How would you say in Spanish: "What day is today?" The student was expected to respond in Spanish: "¿Qué diá es hoy?" The English stimulus was repeated twice. All student responses represented expressions taken directly from the course.

In Part II, the student response was under the control of English instructions and a Spanish stimulus as follows:

- The student was first told in English what he would hear in Spanish and what his response in Spanish should be. These instructions were repeated twice.
- The student then heard the Spanish stimulus twice.
- After hearing the Spanish stimulus the second time, the student then made his response.

In both Parts I and II student responses were tape-recorded for later evaluation by judges. The tests were administered to students individually.

4. Speaking Pronunciation Tests (MLA, SPA, UAE).

These tests were designed to measure the quality of the student's pronunciation, i.e., how closely the student could approximate the Spanish pronunciation of those elements of phonology emphasized in the language course.

Since pronunciation may vary as a function of the context in which it occurs, it was decided to test the same linguistic features in three contexts: mimicry, constructed response, and oral reading. In the first case, the student merely imitated a Spanish stimulus (MLA, SPA, UAE). In the second case, the student constructed a response to a Spanish stimulus (MLA, SPA, UAE). In the third case, the student read aloud a written passage in Spanish (SPA). Reading aloud was not possible for MLA and UAE since the students had not been introduced to written Spanish as a course objective. In all cases, to make the scoring more objective and the final scores more useful, each item measured only one aspect of Spanish phonology. This included discrete consonant and vowel sounds, diphthongs, intonation, rythm and word linking.

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[7] Scoring procedures are described in detail on p. 43.

One of the main problems in testing pronunciation in a context more nearly approximating normal conversation was how to control the student response in order to be certain of eliciting the Spanish word, or words, which contained the features to be evaluated. This problem was handled in the constructed response part of the pronunciation test by using the procedure of the speaking grammar test and by reducing the difficulty of items to increase the probability of eliciting the desired response. The student's Spanish response was under the control of English instructions and a Spanish stimulus. The student was told in English what he would hear in Spanish and what his Spanish response should be. He then heard a simple Spanish stimulus which contained the word, or words, he would need for his response. For example, in the following item the multiple flap rr in perro was tested. The student heard:

"The teacher will say: What does Paco have? A dog?"

"You say: Yes, Paco has a dog."

"¿Qué tiene Paco? Un perro?"

The student heard the English instructions twice and then the Spanish stimulus twice before making his response in Spanish. Expected student responses were: Sí, Paco tiene un perro; Sí, tiene un perro; Sí, un perro.

Much effort was expended to simplify the items without reducing them to straight mimicry. Nevertheless, during the pretesting of items some students still did not give the desired response or failed to respond at all.

Reading and Writing Tests (SPA).

1. Reading Tests.

The three reading tests (grammar, grammar transfer, and vocabulary) were almost exact parallels to the SPA listening comprehension tests. The main difference was as follows: In listening comprehension, the student listened to oral Spanish stimuli on a tape recorder. In the reading tests the student read the Spanish stimuli in the test booklet. In both cases, the identical vocabulary and grammatical elements were tested in the context of the same Spanish utterance. The sequence of the items was changed for the reading tests, and distractors were modified slightly in some items in order to eliminate visual clues when the student had the written Spanish stimulus before him.

2. Writing tests.

The writing tests (grammar, grammar transfer, and vocabulary) were almost exact parallels to the SPA speaking tests. The main differences were as follows: In the speaking test, the student listened to the Spanish stimulus and responded orally. In the writing test, the student read the stimulus in the test booklet and wrote his answer. In both cases, the content of the stimulus and response was identical, but the sequence of the items was changed for the writing tests. The vocabulary test was also used as a spelling test (i.e., it was scored twice, once for correct vocabulary and once for spelling).

Specific Linguistic Content of Tests

Early in the development of the tests it became clear that, with the necessity of developing tests for three different language courses (a total of 28 tests), it would not be possible to develop equally exhaustive tests within the time limits of the project. It was decided to compromise mainly in the areas of pronunciation and morphology--pronunciation, because it was the most difficult language aspect for which to obtain objective and reliable measures; morphology, because the number of different morphological characteristics, within each word class, was too large to permit the preparation of that many test items within the existing time constraints.

To test morphology, selection was made from the word classes and morphological characteristics (e.g., number, gender, tense, person, agreement, etc.) emphasized in the language course. As for pronunciation, the main features of phonology emphasized in the language course were tested.

In regard to syntax, one example of every pattern in the course was tested. Where the course contained more than one example of a pattern, the one most frequently used was generally tested.

As for vocabulary, every word which the course developers expected the students to be able to control at the end of the instructional period was tested with the following exceptions. Comprehension of spoken numbers was limited to numbers 1 through 19, in addition to one example from each subsequent decile (e.g., 25, 33, 47, etc.).

Generally, only one form of a verb was tested--the one most commonly used in the course. (In listening comprehension, when verbs were tested as vocabulary, incorrect response choices never included other forms of the verb being tested. Other verbs used as response distractors were always the same person, number and tense of the verb being tested.)

Listening Comprehension Pretest

A 60-item listening comprehension test was developed for administration to all students participating in the study prior to the start of instruction. The test was to be used as a basis for eliminating from the final data analysis those students with prior knowledge of Spanish. The items were prepared from a random selection of the content of the three language courses. There were 30 vocabulary items, 15 with picture responses and 15 with English alternatives, and 30 grammar items using English alternatives. The items followed the same style and format as those used in the final listening comprehension vocabulary and grammar tests which were described previously. The listening comprehension pretest reliability was .948 (using Kuder-Richardson formula 20).

Student Attitude Questionnaire

A questionnaire was developed to test the student's interest in learning Spanish and confidence in his ability to learn the language. It was administered before instruction began and again after two semesters of Spanish had been completed. The preinstruction measures were used as independent variables in the analysis, and the postinstruction measures were used as dependent variables. The questionnaire consisted of fifteen forced choice items--five on interest, five on confidence, and five neutral fillers. The student read a statement about learning Spanish and marked it true or false. Interest and confidence scores were calculated and reported separately. Scores ranged from zero to five. The zero score indicated no interest or confidence and the five score indicated maximum interest or confidence.

Test Construction Procedures

The development of the tests was a cooperative effort involving the close teamwork of the course authors, test item writers, Spanish teachers, a Spanish linguist, and a foreign language testing specialist, under the direction of SDC's Education and Training Staff.

The following is an outline of the steps taken in the development of the tests:

1. Specification of course objectives
2. Content analysis of each course
3. Training of test item writers
4. Initial item-writing and editing
    a. Initial draft by item writers
    b. Review by test project director
    c. Revision by item writer
    d. Joint review of items for each course by all item writers and test project director
    e. Preparation of master revision
5. Review by authors
6. Review by testing and linguistic consultants
7. Final revisions and preparation of first experimental version
8. Item pretesting
    a. Tryout on three groups (native speakers, students who had not studied Spanish, students who had at least one year of Spanish instruction).
    b. Item analyses
    c. Final revisions based on results of tryouts

Course Objectives

The first step was to meet with each course author to obtain a more specific description of course objectives. The objectives were discussed in terms of: (1) what the student was to be able to do, upon completion of instruction, with the linguistic elements contained in the course; (2) what level of performance would be considered satisfactory; (3) under what conditions satisfactory performance was to be achieved; and (4) how satisfactory performance would be recognized. At this stage the interest was not in identifying the specific linguistic elements to be tested, but rather in determining the stimulus conditions and response conditions necessary to make a valid testing situation. The course authors also used the occasion to provide information on ways in which the course content and teaching procedures needed to be updated. The definitive list of specific linguistic objectives was established later through a content analysis of each course.

Content Analysis

Prior to the writing of test items, a detailed content analysis of the three courses was made by the Spanish teachers who served as consultants. This analysis identified, classified, and listed the specific vocabulary, grammatical patterns, and phonology included in each course. The system used to classify grammatical patterns was set up by the linguistic consultant to the project. A unit-by-unit analysis was completed, with all new language elements entered in a cumulative inventory. The results of the analysis were periodically reviewed by the linguistic consultant.

Training of Item Writers

The consultants who did the content analyses also served as the test item writers. For the most part, their prior experience in test construction consisted of preparing tests for the high school Spanish classes they taught. A two-week training workshop was held which included the following activities:

1. Critical examination of most of the currently used foreign language tests in light of principles of testing and of the particular purposes to be served by the tests we planned to develop.

2. Practice in writing test items, followed by joint critique and revision of the items. This practice was repeated throughout the training period.

Initial Item Writing and Editing

After the training period, one consultant was assigned to write the test items for one of the courses of study. The writing and editing proceeded as follows:

1. Initial draft by the item writer.

2. Review and comments by the test project director.

3. Revision by the item writer.

4. Joint critique by all the item writers and the test project director of test items developed for each course of study. (In this way, each item writer was involved in developing test items for all three courses.)

5. Preparation of master revision.

Review By Course Authors

At this point the course authors were asked to:

1. Indicate whether any item should be deleted because the linguistic element being tested was not part of the course objectives. (All courses were part of a continuing sequence of instruction. Except for SPA, more words and patterns were used in the courses than the students were expected to master at the end of the first year of instruction.)

2. List any linguistic elements which were not included in the test, but which were part of the course objectives and therefore should be tested.

3. Indicate any defective items--test items which did not test what they were supposed to, and suggest any changes in stimulus or response conditions to make the items valid.

Review By Linguistic and Test Consultants

The test consultant checked primarily for defective items. The linguistic consultant checked for agreement of the Spanish utterance being tested and the listed grammatical classification. He also provided an additional check on Spanish authenticity and correctness. Some stimuli, containing artificial Spanish phrases, were retained if the phrases appeared in the language course in that manner.

Final Revisions and Preparation of First Experimental Version

Prior to pretesting the first experimental version of the listening comprehension vocabulary test, all pictures were first tested with sixth-grade pupils using English stimuli to ensure that the pictures conveyed their intended meanings. Many of the original pictures had to be revised, and close contact with the artist was necessary to achieve simplicity and clarity in the pictures.

The speaking items were first pretested entirely in English with sixth-grade students (i.e., the student was told in English what the teacher would say and what his English response was to be. After hearing the stimulus from the teacher, the student responded in English.) Further pretesting, involving English and Spanish, was conducted with sixth graders who were bilingual and others who had at least one year of Spanish instruction. Items were tried with English instructions presented once, followed by the Spanish stimulus once. A variation of this sequence was tried in which the student listened to the English and Spanish once and then heard it a second time, responding in Spanish to the Spanish stimulus. Another format tried was English instructions twice, followed by the Spanish stimulus twice, with the student responding in Spanish after the second presentation of the Spanish stimulus.

As a result of this pretesting, it was decided to use a direct discourse format (e.g., your teacher will say, you say) and also to present the English instructions twice, followed by the Spanish stimulus twice.

Two sets of practice items immediately preceded the tests to ensure that the student understood the tasks involved. The first set was completely in English:

"Your teacher will say: Is Paco nice?"

"You say: No. Paco is not nice."

"Is Paco nice?"

Expected student response: No. Paco is not nice.

The second set of practice items paralleled the actual test items further--both the stimulus and the student response were in Spanish. If the student made a mistake on the practice item because of confusion about the task, he received coaching from the test administrator.

Final revisions were made for all tests and an experimental version was prepared for each one.

Item Pretesting and Item Analyses

1. Tryout of Experimental Version.

Each test was tried out on three different groups of sixth-grade students--native speakers of Spanish, students who knew no Spanish, and students who had studied Spanish for at least one year. The average number of subjects in each group, for each test, was approximately 30.

a. Native speakers.

The subjects were sixth-grade Mexican-American children from the Los Angeles School District, who were fluent in both English and Spanish. It was assumed that these students would make a perfect score on the test, unless extraneous factors caused errors (e.g., poor pictures, ambiguous choices, unclear directions, more than one possible acceptable response, poor tape recording for auditory stimulus, etc.). Items missed by several students were closely examined and were revised if found to be defective.

b. Non Spanish students.

The subjects were sixth-grade students who had never studied Spanish. Since these students were expected to make chance scores, all items on which the group did better than chance were examined closely for extraneous factors (e.g., specific determiners) wich might facilitate a correct answer even though the requisite knowledge was lacking. The pretesting of speaking and writing items with the "non Spanish" group was discontinued after a few subjects, as these students could hardly make any responses.

c. One-year Spanish students.

The subjects were sixth-grade students who had studied Spanish in elementary school for one or more years. Only in the case of UAE were students available who had taken the course of instruction for which the test was being developed. High-low analysis (which identified all items in which low scoring students did better than high scoring students) was conducted to identify items needing further examination for possible extraneous factors. These data were also used to obtain preliminary internal consistency estimates of reliability.

2. Item Analyses.

The item analyses based on the results of the pretesting with the above three groups were conducted mainly to identify items needing closer inspection for the presence of extraneous factors; they were not conducted for the purpose of manipulating the difficulty level and discrimination power of items in order to obtain a wide distribution of test scores.

No items were eliminated because of low discriminating powers, i.e., because all students got an item correct or all missed the item. The aim of the test was not to arbitrarily maximize discriminations among students who all had had the same language course, but rather to discriminate between two groups--one which had not studied Spanish and another which had.

Scoring Procedures

Scoring the listening comprehension and reading tests presented no problems since multiple-choice items were used which could be scored objectively.

Achieving objectivity in scoring the speaking and writing tests was a major challenge. The aim was to develop a system which would reduce subjective judgments on the part of scorers to a minimum, essentially changing the role of the judge from decision-maker to rule-follower. The procedures developed to accomplish this are described below.

Speaking Grammar and Speaking Grammar Transfer Tests (MLA, SPA)

The use of written transcriptions of the tape-recorded student responses contributed to increased objectivity of scoring. The scoring proceeded in two stages. The judges first listened to each tape and then wrote down exactly what the student said for each item. After transcriptions had been prepared for each student, the judges scored the tests from the transcriptions rather than from the tapes. This had several advantages. When scoring directly from the tapes, the judge had to listen to a response, stop the tape and then look at the scoring guide. While looking at the scoring guide, he had to depend on his memory to recall the exact student response. This system sometimes necessitated playing the tape several times. With a written transcription, the judge always had the student response in front of him. Equally important is the fact that the judge could score all students on each item before going on to the next item, rather than score all items for one student at a time.

Each student response was scored twice. Each evaluation was based on a different criterion. The first scoring was on discrete grammatical elements, in which only errors on the point being tested caused a loss of credit. The second scoring was on the entire utterance, which had to be completely error-free for the response to be marked correct. The total score for each evaluation was calculated and reported separately. The first scoring was considered to relate to basic course objectives, while the second reflected maximum objectives.

1. Scoring on Discrete Grammatical Elements.

Each item in the test was concerned with one discrete aspect of Spanish grammar. Errors in vocabulary, or grammatical mistakes unrelated to the point being tested, were ignored. Pronunciation errors also were ignored. Each item was scored on a right or wrong basis. No partial credit was given.

The judge's scoring guide listed the response (or responses) for each item which was acceptable as a correct answer. Each word in the acceptable response was given a slot number. Each slot contained an indication of what was necessary in that position to receive credit for a correct response. In the example which follows two acceptable responses are shown for purposes of illustration:

Sample Item

- Pattern being tested: Noun phrase as subject + verb "to be" + noun phrase as predicate nominative.
- Student heard: "Your teacher will say: Is a cat a person or an animal?"

"You say: A cat is an animal."

"¿Es un gato una persona o un animal?"

. Scoring procedures

a. Acceptable Response No. 1 (where noun phrase as subject was omitted)

$$\overset{1}{\text{Es}} + \overset{2}{\text{(ND)}} + \overset{3}{\text{animal}}\ \text{(persona)}$$

b. Acceptable Response No. 2 (where noun phrase as subject was present)

$$\overset{1}{\text{(ND)}} + \overset{2}{\text{gato}} + \overset{3}{\text{es}} + \overset{4}{\text{(ND)}} + \overset{5}{\text{noun predicate nominative, except gato or proper name}}$$

Explanation of Acceptable Response No. 1

(1) Slot 1. Es must be present.

(2) Slot 2. The parentheses indicate that the element for that slot is optional. ND is the abbreviation for noun determiner; noun determiner in parentheses (ND) means that the noun determiner may be omitted. Therefore, the student would not be penalized for omission of the article "un." ("Es animal" would be scored as a correct response.) Furthermore, since the slot calls for a noun determiner, any noun determiner would be acceptable. However, if the student uses anything but a noun determiner in slot 2, he is incorrect.

If the word "un" had appeared in parentheses, instead of the category "noun determiner," it would have meant that "un" could be omitted but that "un" was the only noun determiner acceptable in that slot.

(3) Slot 3. A word (or group of words) in parentheses, immediately following another word, and not connected by a "plus" sign (in this case persona is in parentheses and follows animal), may be substituted for the word it follows. In other words, either animal or persona would satisfy the requirements for this slot.

2. Scoring on Entire Utterance.

The student response had to be perfect (except for pronunciation errors) when scored on the entire utterance in order to receive credit for a correct answer. Not only could there be no errors in vocabulary or grammar, but the factual content of the response had to be correct (e.g., "Un gato es una persona" would be incorrect). A few minor substitutions or omissions of words were permitted in some items; these were indicated in the judge's scoring guide. Items were scored as either right or wrong. There was no partial credit. Thus, the final score represented the total number of perfect responses made by the student.

Pronunciation Tests (MLA, SPA, UAE).

The evaluation of pronunciation offered the most resistance to objectivity in scoring. To make the judge's task as specific as possible, each item focused on one discrete aspect of Spanish phonology. A three point scale was used to judge the student's response; however, it was described to the judges more as a forced choice. The judge's guide listed the Spanish feature being tested in one column (followed by a description of it) and the probable error in another column, (e.g., feature tested--rr; discription--a multiple flap; English probable error--"growled" r as in parrot). If the judge heard a close approximation of the feature tested, he scored the item right (+). If he heard the probable error or a close approximation of it, he scored the item wrong (-). If he heard something that was neither the feature tested nor the probable error (or if he could not decide if it was either one) he scored the item as being in doubt (?). A score of "?" assumed that the student response, in which the feature being tested appeared, was recognizable; otherwise, it was scored as no response (NR). The judges scores (i.e., +, ?, -, NR) were translated into the following 3 point scale:

+ = 2 (good)

? = 1 (acceptable)

NR, - = 0 (inadequate)

The judges were told only that they were to score on a right or wrong basis, or to indicate that they were not sure. They were not told of the point values assigned to their scoring.

It was possible that some of the items scored "?" represented errors other than the probable error; however, in most cases where the judge could not make a clear distinction between the feature being tested and the probable error, the sound was probably somewhere between the Spanish and English pronunciation.

Poor recording conditions sometimes resulted in extraneous noises on student response tapes, making the scoring of these tapes more difficult. Judges also reported that in trying to focus on a discrete phonological feature they were frequently distracted by other errors in the utterance.

Speaking Vocabulary Tests (MLA, SPA)

In each item the student was evaluated on one word (occasionally on an entire expression such as "Buenos días"). If the judge, listening to the tape, recognized the word, the item was marked as correct regardless of poor pronunciation or of errors in other parts of the utterance. Each item was scored as either right or wrong. Morphological errors were ignored (e.g., in testing for the word "tall," "El padre es alta" would be scored as correct); credit was not lost for omission or incorrect use of articles with nouns. Since the scoring procedure was fairly simple and direct, the judges were able to score the vocabulary test directly from the tape.

Speaking Expression Tests (UAE)

In this test the student's use of Spanish expressions was evaluated. Control of discrete vocabulary and grammatical elements was not tested. Many of the expressions tested represented the same grammatical pattern.

Each test item was scored twice. The first scoring was concerned with a minimal acceptable response, which did not have to be error-free for the student to receive credit. The second scoring was on the entire utterance and required a perfect response to receive credit.

1. Scoring on Minimal Acceptable Response.

   The emphasis was on whether or not the basic meaning of the utterance was communicated to a native speaker of Spanish. The judge's scoring guide indicated the key words which had to be present in the response for the item to be scored as correct. Each word in the expected response was given a slot number. Symbols were used to indicate what was necessary in each slot in order to receive credit for a correct response (e.g., a word in parentheses indicated that the word could be omitted, but if the slot was filled, it had to be filled with the word in the parentheses or from the class of words indicated in the parentheses). Grammatical errors which did not change the meaning of the utterance or make it ambiguous were ignored. Certain minor omissions and substitutions were permissible without loss of credit. Pronunciation errors had no effect on the scoring as long as the utterance was comprehensible.

2. Scoring on Entire Utterance.

   The same items were scored again. However, except for pronunciation errors, the student response had to be completely error-free in order to receive credit for a correct response.

Writing Tests (SPA)

1. Grammar and Grammar Transfer.

   The same scoring guide and procedures used for the speaking grammar and grammar transfer tests were followed. However, in the speaking tests, errors in pronunciation were ignored, while in the writing tests spelling mistakes did not cause items to be scored as incorrect.

2. Vocabulary.

   Spelling mistakes were ignored unless the response was unrecognizable, just as pronunciation errors in the speaking test did not cause items to be scored as incorrect; otherwise the procedures were the same as in the speaking test.

3. Spelling.

   The vocabulary test was scored a second time for spelling only. Items were scored right (+), wrong (-) or no response (NR). If the student did not respond, or his response was not the vocabulary word called for in the test item, the item was not scored for spelling but was marked "NR" instead.

Training of Judges and Interjudge Agreement

1. Training of Judges for Speaking Tests.

   a. Procedures.

Three Spanish teachers (all native speakers of the language) were used to evaluate each speaking test. Training of the judges was conducted to ensure common interpretation and use of the judge's scoring guides. The following training procedures were followed for each test:

(1) The judges read copies of the "General Instructions" and the "Judge's Scoring Guide."

(2) Suggestions and discussion resulted in a revision of the above documents.

(3) Using the revised instructions and guide, each judge independently evaluated a few sample tapes and noted any problems or difficulties which arose during the scoring.

(4) A group discussion resulted in further revision of the instructions and scoring guide.

(5) The judges met as a group to score a selected subsample of tests jointly. One item at a time was scored secretly by each judge; then the scores assigned were compared and discussed. For each item on which there was not perfect agreement, each judge explained his scoring. The basis for the correct score for each item was thoroughly explained by the test project director.

(6) The process of joint scoring and discussion was repeated, using additional sample tapes, until the judges were agreeing most of the time.

b. Remarks on training of judges.

(1) For the grammar and grammar transfer tests, judges' errors during the training exercises were due principally to their changing the criterion, i.e., accepting a student error not permitted by the rules. It was made clear to the judges that the rules were inflexible and had to be followed regardless of the judge's agreement or disagreement with whether or not an error was serious enough to cause the item to be marked wrong. Subsequently, there was little difficulty.

(2) The system of assigning slot numbers to every word in the response and indicating the requirements necessary for each slot made the scoring highly objective.

(3) Subjective judgment was reduced to a minimum except for the pronunciation test. This test offered the most difficulty. In evaluating sample tapes it became clear that although the judges understood and were in agreement as to what they were listening for, their perceptions of the sounds differed. Background noise on some student response tapes also added to the difficulty of scoring these tests. Training of the judges for the pronunciation tests required the most time, and the interjudge agreement and individual judge consistency were the lowest of the speaking tests.

2. Interjudge Agreement and Intrajudge Consistency.

Following the training period, the tests in each speaking category (e.g., grammar, vocabulary, etc.) were divided randomly among three judges for scoring, so that each judge scored one-third of the tests in each category. The score for any one student represented the rating of a single judge.

Interjudge agreement was established initially by having all three judges independently evaluate a common sample of 10 tests selected at random. After the scoring of all tests in a category was completed, the judges were asked to independently score a second and new common random sample of 10 tests to see whether the interjudge agreement obtained at the outset of the scoring had been maintained. The scores of each judge were correlated with those of each of the other two judges, and the average of the three correlations was used as the measure of interjudge agreement.

The individual consistency of each judge over time was determined by having each judge rescore five tests that he had scored previously, enabling computation of a correlation between the early and late scoring for each judge.

The Pearson Product-Moment r was used to determine interjudge agreement and intrajudge consistency. Tables 5-12 present the data on interjudge agreement and intrajudge consistency for each test and each language course.

In general, the average interjudge correlations were high. For the SPA and MLA speaking grammar, grammar transfer, and vocabulary tests, the lowest value was .91, with 18 of the 20 values exceeding .94. The second scorings were not markedly different from the first, indicating that interjudge agreement remained consistent over time. The intrajudge consistency for each of the three judges was also generally high for the above tests. Of 30 values, one was .79 while the remaining 29 were .94 or higher.

The interjudge agreement for the pronunciation tests was lowest of all tests, ranging from .61 to .97. For all three courses, higher interjudge agreement on pronunciation tests was achieved on the second scorings than on the first. The judges appeared to use more uniform standards as a result of practice.

On the UAE expression test, the average interjudge agreement was generally high, ranging from .72 to .99. Five of eight values were .96 or higher. The other three were .72, .84, and .89. The average interjudge agreement was lower on the second scoring, apparently due to the fact that the individual consistency over time of one of the judges was lower on this test than on the others. The intrajudge agreement was generally high. Of 12 values, nine were .96 or higher. The other three were .69, .74, and .88.

The average interjudge agreement for the SPA writing tests was high and compared favorably with the speaking tests. Of 12 values, 11 were .94 or higher, while one was .75. On intrajudge agreement, 16 values were .94 or higher, while the other two were .70 and .77.

Statistical Characteristics of the Tests

Data for the MLA, SPA and UAE language courses are presented in Tables 13, 14, and 15 respectively. Preliminary estimates of reliability were obtained from the final experimental tryout of the tests with non-project subjects; however, since the tests were revised again after the final experimental tryout, these reliability data were not applicable to the final version of the tests. The reliability data reported in this section were computed from those subjects who participated in the study and received the final exams at the end of the school year, using Kuder-Richardson Formula 20.

In considering Tables 13, 14, and 15, a wide range of test reliabilities is found. Two factors contribute to this variability. They are the length of a test and the degree of subjectivity in scoring procedures. As is always true, the longer tests have the highest reliability; none of the lengthy vocabulary test reliabilities is less than .94. Among all tests in these tables, lowest reliabilities were obtained for the various pronunciation tests, which were scored most subjectively. Thus, the pronunciation test reliabilities of less than .70 are a function of both the shortness of the tests and the inherent subjectivity of scoring. In general, the reliabilities for the listening comprehension tests are high. They vary from .836 to .987, with 9 of 12 values exceeding .91. The reading and writing test reliabilities all exceed .87.

TABLE 5

AVERAGE INTERJUDGE AGREEMENT IN SCORING MLA SPEAKING TESTS*

Test	First Scoring	Second Scoring
Grammar		
Entire utterance.....	98†	97
Discrete elements....	96	96
Grammar transfer		
Entire utterance.....	94	91
Discrete elements....	91	96
Vocabulary............	99	99
Pronunciation		
Mimicry.............	76	90
Constructed response.	66	94

*Three judges independently scored a common sample of 10 tests at the beginning of their scoring (first scoring), and scored another common sample of 10 tests at the conclusion of their scoring (second scoring). Each judge's first scoring was correlated with those of the other two judges; the average of the three correlations is reported in this table.

†Decimal points have been omitted. Reliability coefficients have been carried to the nearest hundredth.

TABLE 6

INTRAJUDGE CONSISTENCY IN SCORING MLA SPEAKING TESTS*

Test	Judge 1	Judge 2	Judge 3
Grammar			
Entire utterance..........	99†	99	98
Discrete elements.........	79	98	99
Grammar Transfer			
Entire utterance..........	99	99	99
Discrete elements.........	95	99	96
Vocabulary.................	99	99	99
Pronunciation			
Mimicry....................	98	93	91
Constructed response......	98	98	87

*After all tests had been scored, each judge rescored 5 tests which he had evaluated earlier; the correlation between the two scores is reported in this table.

†Decimal points have been omitted. Reliability coefficients have been carried to the nearest hundredth.

TABLE 7

AVERAGE INTERJUDGE AGREEMENT IN SCORING SPA SPEAKING TESTS*

Test	First Scoring	Second Scoring
Grammar		
Entire utterance.....	98†	99
Discrete elements....	99	97
Grammar Transfer		
Entire utterance.....	99	96
Discrete elements....	99	95
Vocabulary............	99	99
Mimicry..............	72	78
Constructed response.	70	97
Oral reading.........	67	84

*Three judges independently scored a common sample of 10 tests at the beginning of their scoring (first scoring), and scored another common sample of 10 tests at the conclusion of their scoring (second scoring). Each judge's first scoring was correlated with those of the other two judges; the average of the three correlations is reported in this table.

†Decimal points have been omitted. Reliability coefficients have been carried to the nearest hundredth.

TABLE 8

INTRAJUDGE CONSISTENCY IN SCORING SPA SPEAKING TESTS*

Test	Judge 1	Judge 2	Judge 3
Grammar			
Entire utterance..........	99‡	99	99
Discrete elements.........	99	98	99
Grammar Transfer			
Entire utterance..........	99	97	98
Discrete elements.........	99	94	99
Vocabulary.................	99	98	99
Pronunciation			
Mimicry....................	96	83	98
Constructed response......	94	84	98
Oral reading..............	98	87	94

*After all tests had been scored, each judge rescored 5 tests which he had evaluated earlier; the correlation between the two scores is reported in this table.

‡Decimal points have been omitted. Reliability coefficients have been carried to the nearest hundredth.

TABLE 9

AVERAGE INTERJUDGE AGREEMENT IN SCORING SPA WRITING TESTS*

Test	First Scoring	Second Scoring
Grammar		
Entire utterance.....	99ƒ	99
Discrete elements....	99	99
Grammar Transfer		
Entire utterance.....	99	94
Discrete delements...	99	75
Vocabulary............	99	99
Spelling..............	99	99

*Three judges independently scored a common sample of 10 tests at the beginning of their scoring (first scoring), and scored another common sample of 10 tests at the conclusion of their scoring (second scoring). Each judge's first scoring was correlated with those of the other two judges; the average of the three correlations is reported in this table.

ƒDecimal points have been omitted. Reliability coefficients have been carried to the nearest hundredth.

TABLE 10

INTRAJUDGE CONSISTENCY IN SCORING SPA WRITING TESTS*

Test	Judge 1	Judge 2	Judge 3
Grammar			
Entire utterance..........	99†	99	97
Discrete elements.........	99	98	99
Grammar Transfer			
Entire utterance..........	99	77	99
Discrete elements.........	99	94	70
Vocabulary................	99	99	99
Spelling..................	99	94	99

*After all tests had been scored, each judge rescored 5 tests which he had evaluated earlier; the correlation between the two scores is reported in this table.

†Decimal points have been omitted. Reliability coefficients have been carried to the nearest hundredth.

TABLE 11

AVERAGE INTERJUDGE AGREEMENT IN SCORING UAE SPEAKING TESTS*

Test	First Scoring	Second Scoring
Expression (Pt. I)		
English stimulus Entire utterance.....	99†	89
English stimulus Minimal response.....	99	84
Expression (Pt. II)		
Spanish stimulus Entire utterance.....	99	96
Spanish stimulus Minimal response.....	99	72
Pronunciation		
Mimicry..............	79	90
Constructed response.	61	86

*Three judges independently scored a common sample of 10 tests at the beginning of their scoring (first scoring), and scored another common sample of 10 tests at the conclusion of their scoring (second scoring). Each judge's first scoring was correlated with those of the other two judges; the average of the three correlations is reported in this table.

†Decimal points have been omitted. Reliability coefficients have been carried to the nearest hundredth.

TABLE 12

INTRAJUDGE CONSISTENCY IN SCORING UAE SPEAKING TESTS*

Test	Judge 1	Judge 2	Judge 3
Expression (Pt. I)			
English stimulus Entire utterance..........	99†	74	97
English stimulus Minimal response..........	98	69	96
Expression (Pt. II)			
Spanish stimulus Entire utterance..........	98	88	99
Spanish stimulus Minimal response..........	99	98	99
Pronunciation			
Mimicry....................	89	78	92
Constructed response......	97	93	98

*After all tests had been scored, each judge rescored 5 tests which he had evaluated earlier; the correlation between the two scores is reported in this table.

†Decimal points have been omitted. Reliability coefficients have been carried to the nearest hundredth.

TABLE 13

STATISTICAL CHARACTERISTICS OF MLA TESTS

Test	Number Test Items	Maximum Possible Score	Approximate Test Time (Minutes)	Number of Students	Reliability
Listening Comprehension					
Midterm vocabulary....	132	132	45	521	95*
Midterm grammar.......	37	37	12	521	84
Final vocabulary......	270	270	95	458	98
Final grammar.........	69	69	33	463	92
Final grammar transfer	34	34	14	470	86
Speaking†					
Vocabulary...........	264	264	75	60	98
Grammar............... (discrete elements)	60	60	61	60	85

* Decimal points for reliability coefficients have been omitted. Each coefficient is presented to the nearest hundredth.

† All these are final tests.

TABLE 13 continued

Test	Number Test Items	Maximum Possible Score	Approximate Test Time (Minutes)	Number of Students	Reliability
Speaking (continued)					
Grammar................ (entire utterance)	60	60	....[≠]	60	80
Grammar transfer....... (discrete elements)	30	30	25	60	71
Grammar transfer....... (entire utterance)	30	30	....[≠]	60	63
Pronunciation.......... (mimicry)	21	42	9	59	59
Pronunciation.......... (constructed response)	21	42	18	59	60

[≠] No times are listed for speaking grammar and grammar transfer tests (entire utterance). These represent another scoring of the grammar and grammar transfer tests (discrete elements), rather than separate instruments.

TABLE 14

STATISTICAL CHARACTERISTICS OF SPA TESTS

Test	Number Test Items	Maximum Possible Score	Approximate Test Time (Minutes)	Number of Students	Reliability
Listening Comprehension					
Midterm vocabulary....	90	90	35	135	94*
Midterm grammar.......	31	31	12	135	87
Final vocabulary......	214	214	81	46	97
Final grammar.........	61	61	21	44	92
Final grammar transfer	38	38	13	47	92

* Decimal points for reliability coefficients have been omitted. Each coefficient is presented to the nearest hundredth.

† All the speaking, reading, and writing tests were finals.

‡ No times are listed for speaking grammar and grammar transfer tests (entire utterance). These represent another scoring of the grammar and grammar transfer tests (discrete elements), rather than separate instruments.

§ The spelling test represents another scoring of the writing vocabulary test.

TABLE 14 continued

Test	Number Test Items	Maximum Possible Score	Approximate Test Time (Minutes)	Number of Students	Reliability
Speaking[†]					
Vocabulary............	209	209	60	47	99
Grammar............... (discrete elements)	49	49	52	49	92
Grammar............... (entire utterance)	49	49	....[‡]	49	93
Grammar transfer...... (discrete elements)	29	29	23	47	91
Grammar transfer...... (entire utterance)	29	29	....[‡]	47	89
Pronunciation......... (mimicry)	20	40	06	49	72
Pronunciation......... (constructed response)	20	40	13	49	80
Pronunciation......... (oral reading)	15	30	04	49	74
Reading					
Vocabulary............	214	214	100	49	98
Grammar...............	56	56	30	49	91

TABLE 14 continued

Test	Number Test Items	Maximum Possible Score	Approximate Test Time (Minutes)	Number of Students	Reliability
Reading (continued)					
Grammar transfer......	33	33	20	49	88
Writing†					
Vocabulary............	209	209	70	48	99
Grammar............... (discrete elements)	49	49	60	47	95
Grammar............... (entire utterance)	49	49	....‡	47	95
Grammar transfer...... (discrete elements)	29	29	36	47	94
Grammar transfer...... (entire utterance)	29	29	....‡	47	93
Spelling..............	209	209	....§	48	99

* Decimal points for reliability coefficients have been omitted. Each coefficient is presented to the nearest hundredth.

† All the speaking, reading, and writing tests were finals.

‡ No times are listed for speaking grammar and grammar transfer tests (entire utterance). These represent another scoring of the grammar and grammar transfer tests (discrete elements), rather than separate instruments.

§ The spelling test represents another scoring of the writing vocabulary test.

TABLE 15

STATISTICAL CHARACTERISTICS OF UAE TESTS

Test	Number Test Items	Maximum Possible Score	Approximate Test Time (Minutes)	Number of Students	Reliability
Listening Comprehension					
Midterm vocabulary............	227	227	66	418	98*
Final vocabulary.............	384	384	136	396	99
Speaking[†]					
Expression (English stimulus)					
Minimal response.............	45	45	58	26	88
Entire utterance.............	45	45	....[‡]	58	84
Expression (Spanish stimulus)					
Minimal response.............	27	27	24	58	84
Entire utterance.............	25	25	....[‡]	58	78
Pronunciation Mimicry......................	15	30	08	58	57
Pronunciation Constructed response.........	15	30	13	58	73

* Decimal points for reliability coefficients have been omitted. Each coefficient is presented to the nearest hundredth.

[†] All these are final tests.

[‡] No times are listed for speaking expression tests based on entire utterance. These represent another scoring of the expression tests (discrete elements), rather than separate instruments.

PART II

RESULTS AND CONCLUSIONS

In Chapters 5, 6, and 7, each of the three language courses is discussed in turn, one course to each chapter, and no comparisons are made between courses. It is important to emphasize once again that although all three courses were evaluated as part of the same project, they actually represent three separate studies. This project measures the extent to which each course achieved its own objectives under specified conditions, and not whether one course was superior to another. The reader is cautioned against the temptation of comparing the courses on the basis of mean scores (as percentages of the maximum possible score) on the various tests. Such comparisons would be meaningless since the objectives of these courses differed both quantitatively and qualitatively, and the content and total number of items on each test were, therefore, different for each course.

The following remarks about format and content apply to all three courses. The treatment of the data is divided into two parts, results and discussion. Following a verbal description of the results and the discussion are tables with descriptive statistics on all tests. The first tables at the end of each chapter (i.e., MLA, Tables 16 and 17; SPA, Tables 44, 45, and 46; and UAE, Tables 89 and 90) summarize the results of all tests. For each test the following information is provided: the number of students, maximum possible score, mean score, and mean as a percentage of the maximum possible score, and the standard deviation.

The listing of a test in this table does not always indicate that a separate test instrument was used. For example, scores for the entire utterance and discrete elements in grammar actually represent two different scorings of the same test. The same is true for grammar transfer. Also, scores on the midterm tests were compared with scores on the same tests given as part of the final examination. The midterm tests and the midterm (as part of the final) are discussed only in relation to each other.

The remaining tables in these chapters (MLA, Tables 18 - 43; SPA, Tables 47 - 88; UAE, Tables 91 - 110) provide frequency distributions for individual tests; intercorrelations among all tests; correlations between independent and dependent variables, including multiple regression analyses; and a rank ordering of classes in MLA and UAE in terms of mean achievement in listening comprehension vocabulary, showing relationships to class means on student, teacher, classroom, and district variables respectively. Tables showing the percentage of students responding correctly to each item in each test are presented in Appendices A,B, and C.

The discussion section contains further interpretation of the data, conclusions, and limitations to interpretation of results. Although the three language courses were analyzed separately, there were numerous cases where similar results led to similar language in the discussions.

Chapter 8 is concerned with cost factors in the implementation of each of the three courses of instruction. The cost of equipment and materials, in-service training, maintenance, and the man-hours spent by various personnel and offices within the school system are discussed for each course.

Chapter 9 presents a summary and recommendations to school districts and to course developers and publishers respectively.

CHAPTER V

RESULTS AND CONCLUSIONS FOR MLA

Summary of All Tests

Upon completion of the course, eight final tests were given, three in listening comprehension, and five in speaking. Tables 16 and 17 present the overall results. The number of students taking the listening tests ranged from 389 to 404. With one exception, 55 students took each of the speaking tests. These 55 students, selected randomly from among those taking the listening tests, did not differ appreciably from the students taking the listening tests, but not the speaking tests, in IQ, reading grade placement, amount of previous Spanish training, score on the Spanish pretest, and preinstructional interest and confidence.

Achievement, in terms of mean scores as a percentage of the maximum possible score, ranged from a high of 71 percent in listening comprehension vocabulary to a low of 5 percent in speaking grammar transfer (scoring on entire utterance). The overall achievement on all tests was low. The students did considerably better in listening comprehension than in speaking.

About half the tests showed a wide distribution of scores. On the other half of the tests, there was little variability, with most scores falling at the low end of the scale.

Listening Comprehension

The level of achievement on the final listening comprehension tests, shown in Tables 18, 19, and 20 was generally low. The highest achievement was in listening comprehension vocabulary, where the mean score was 71 percent of the maximum possible score. There was a considerable spread of scores. Approximately one-third of the students reached the 81 percent mastery level or better, as shown in Table 18. About 46 percent of the students scored between 61 and 80 percent, whereas 21 percent of the students were below the 61 percent level of achievement.

Achievement on the listening comprehension grammar test was lower than on the listening comprehension vocabulary test. The mean was 61 percent of the maximum possible score. A considerable dispersion of scores was again evident (Table 19). Only 7 percent of the students reached the 80 percent mastery level, whereas 43 percent of the students were below the 61 percent level.

The lowest achievement was on the listening comprehension grammar transfer test, where the mean score was 48 percent of the maximum possible score. Again, there was a fairly wide distribution of scores, as shown in Table 20. Less than 2 percent of the students achieved the 81 percent mastery level, and 22 percent of the students scored between 61 and 80 percent. About one-fourth of the group made scores at about the chance level (i.e., 33 percent).

Performance on the midterm listening comprehension vocabulary and grammar tests (vocabulary and grammar learned through Unit 7 of the course) was not significantly different from the results achieved when this part of the test was given again as part of the final examination. What was learned during the first half of the course was retained as new material was introduced, but learning of first half material did not increase significantly during the last half of the course. The correlation between scores on the midterm and on this same test given at the end of instruction was .81 in vocabulary and .68 in grammar. Frequency distributions of scores on the midterm vocabulary and grammar tests for both the midterm performance and the final performance are shown in Tables 21 through 24.

Speaking

Achievement on the speaking tests was extremely poor and far below the listening comprehension results. The seven mean values varied from 5 to 51 percent of the maximum possible score, as shown in Table 17.

The mean for speaking vocabulary was 28 percent, and only 9 percent of the students achieved 51 percent or better, none exceeding the 70 percent level. The four grammar and grammar transfer test means were all under 17 percent. There was little variability in performance on these tests, as can be seen in Tables 26 through 29, showing frequency distributions of scores. Further, results were lower when scoring was on the entire utterance than when based on discrete elements.

In pronunciation, mean performance on mimicry (51 percent) was better than on constructed response (35 percent). The constructed response scores, however, were depressed because the students did not respond to some items and, therefore, could receive no credit for pronunciation. Frequency distributions of scores on pronunciation tests are presented in Tables 30 and 31.

Interest and Confidence

There were no significant differences between mean measures of pre- and postinstruction interest or pre- and postinstruction confidence. The correlations between the pre- and postinstruction scores were low (.34 for confidence and .21 for interest).

Class Achievement

Tables 32, 33, and 34 show selected student, teacher, and classroom characteristics respectively in relation to a rank ordering of class mean scores on the final listening comprehension vocabulary test. This test was chosen for this presentation because achievement was higher than on any other test, and provided a relatively wide dispersion of scores. Independent variables were chosen for this presentation on the basis of having some degree of variability among classes.

There was considerable variation in class achievement. However, none of the independent variables measured showed a relationship to this variation, as can be seen in the two tables. For example, Table 32 shows that of the six classes with the highest achievement, two had high mean IQs (ranking first and third out of 18), and two had much lower IQs (ranking 12th and 17th). The class with the second highest mean IQ ranked 14th in achievement.

Teacher variables in relation to class achievement are shown in Table 33. It can be seen, for example, that the class with the highest mean achievement in listening comprehension vocabulary and one other of the top six classes had teachers with no prior experience in teaching Spanish, whereas one of the two classes which had teachers with five or more years of experience was 15th out of 18 in achievement.

Regarding the teacher's use of English in the classroom, shown in Table 34, the teacher of the top ranked class in achievement used it "rarely," and the teacher of the second ranked class "sometimes" used it. Of the bottom three classes, the teacher of the 18th used English "sometimes;" the teacher of the 17th used it "rarely;" and the teacher of the 16th used it "frequently."

Correlation and Regression Analyses

Tables 35 - 40 present the correlations of student, teacher, and classroom and district characteristics with performances on the listening comprehension and speaking tests. These data indicate that, for predictive purposes, none of the independent variables had a sufficiently strong and consistent relationship with the various test scores to merit much attention.

It was expected that correlations would be relatively low because of the lack of control over classroom environment in the study. It is of some interest that a few variables showed consistent, if small, relationships to test scores. For example, it can be seen in both Tables 35 and 36 that IQ, grade point average for fifth grade work, and reading grade placement all had approximately the same degree of correlation with achievement across tests. Such results are suggestive of relationships bearing further investigation, particularly the interactions among variables that seem to have some influence upon achievement in the absence of rigorous environmental or statistical controls.

In order to determine the extent to which different combinations of independent variables would relate to achievement, five multiple regression analyses were performed on the data. A computer program was used which takes the intercorrelations among variables and computes the regression of multiple independent variables on a given dependent variable. The results of the five regression analyses are given in Tables 41 and 42.

The first regression analysis used five variables of student characteristics and all dependent variables; the second used five teacher variables; and the third used 11 variables of class characteristics. For the fourth analysis, six independent variables from all categories were isolated and their multiple regression on the dependent variables was determined.[1] For the fifth analysis, the computer program was directed to take all independent variables and select a "good" subset in terms of the amount of variance in the dependent variable associated with the particular subset.[2] Seven variables were selected and their regressions with dependent variables were calculated.

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[1] In each case, those variables were selected which the investigators felt would potentially relate most strongly to achievement.

[2] A "good" subset here was one of several, having high multiple regression coefficients, all of which were statistically equivalent. For a discussion of the criteria and methods used by the computer program to select a "good" subset, see L. Villone, R. McCornack, and K. Wood, Multiple Regression with Subsetting of Variables, System Development Corporation Document FN-6622/0/0, June 1962.

These five regression analyses show that combinations of independent variables were more highly related to student learning than were any of the individual variables. However, the analyses did not indicate that any one way of grouping variables was a better way of predicting student performance than was any other grouping. That is, student variables were not superior to teacher variables; variables selected mathematically by a computer were not superior to those selected by the investigators. The sizes of the multiple regression coefficients indicate that the independent variables measured in this study accounted for a relatively small percentage of the learning associated with the use of MLA materials.

Intercorrelations Among All Tests

Table 43 presents the correlations among all MLA tests. The intercorrelations among the three final listening comprehension tests were fairly high (.87, .77, .80). The intercorrelations among all speaking tests (except pronunciation) were also fairly high; four of the values were over .80 and only one of the remaining six was under .73. The correlations involving the speaking pronunciation tests and all other tests were low, varying from .29 to .58. There were moderate positive correlations between the speaking vocabulary and grammar tests and the listening comprehension tests respectively, ranging from .43 to .84.

Discussion

The listening comprehension results were generally quite low. Only on the vocabulary test was the mean achievement reasonably high---71 percent of the maximum possible score. However, even in this case the wide variability in performance presents serious problems of articulation (i.e., the ability of most students to profit from the instruction that would normally follow the first year's course).

The speaking results were extremely low (far below the listening comprehension achievement), with almost all scores falling at the low end of the scale. The drop in scores from grammar to grammar transfer, in which the test item stimulus did not provide the student with all the words needed for his speaking responses, may indicate that the students needed more practice in initiating utterances on their own, in contrast to responding to Spanish utterances. The sharp drop in speaking grammar and grammar transfer scores, when scoring was on the entire utterance (i.e., the student response had to be completely error-free to be marked correct) indicated that even in items where the discrete grammatical elements were correct, the students were making very few perfect responses.

The poor performance in speaking raises questions concerning the relationship between listening comprehension and speaking. If it is true, as suggested by modern audio-lingual theory, that listening comprehension serves as an important foundation for developing skill in speaking, then the low achievement in speaking in this study may be explained in part by the students' incomplete control in listening comprehension.

However, even granting the relationship between these two skills suggested above, there is still the question as to the kind and amount of listening comprehension training and performance that should be provided. In other words, should a certain type and level of performance in listening comprehension first be achieved in order to obtain the most satisfactory progress in speaking? Should speaking practice be introduced more slowly, in smaller doses, increasing gradually as the students demonstrate a high level of performance in listening comprehension? The relationship between listening comprehension and speaking skills should receive careful consideration in attempts to improve speaking instruction.

As mentioned earlier, the overall results indicate that very few students are prepared for the next sequence of instruction. Even if the second year's course contained considerable review of first year material, individual differences make it unlikely that overall performance would improve significantly. It is more likely that variability in performance would increase from year to year. The schools would be faced with increasingly difficult problems of articulation, especially as new skills such as reading and writing were introduced; many students would fall further and further behind in succeeding years.

The results suggest that modifications to the materials might be needed to improve student performance. Appendix A contains student performance data (the percent of students responding correctly) for each specific vocabulary and grammatical element. Those elements which very few or no students learned would require special attention.

However, modification in the amount and type of practice for specific vocabulary and grammatical elements might not be sufficient. Given the lock-step system and a limited amount of time, it may be necessary to limit the total number of linguistic objectives to be taught in order to reduce the wide variability in end-of-course performance (i.e., set up more feasible goals and thus provide more practice and greater variety with fewer vocabulary and grammatical elements). It is apparent that the typical end-of-course evaluation of students and assignment of grades ignores the problems implicit in the wide range in student performance.

A possible explanation for the generally low student performance obtained in this study may be that the traditional method of preparing a whole semester's course (or a year's course) without pretesting as it is developed, and basing revisions on subjective evaluations from teachers, is inadequate. If we wish to develop materials and procedures that are highly effective (i.e., that enable most students to achieve a specified minimal level of performance needed to proceed to the next sequence of instruction) with a given population of students, it is necessary to pretest materials unit by unit on the intended students, basing revisions on a detailed, objective measurement of student performance.

The following basic question must be answered, however, before valid conclusions can be drawn concerning the use of the MLA materials with sixth-grade students: To what extent are the results of this study a function of problems connected with lack of teacher experience in implementing a new instructional approach and in using a set of materials for the first time? Are the results representative of what might be expected after the school and teachers had experience in using the materials? This study should be repeated in school districts having various amounts of experience in using these materials before drawing definite conclusions.

Limitations in the Interpretation of Results

The implications drawn from the results must be qualified by a number of factors. One of these is the size of the sample participating in the final testing (i.e., 389-404 for the listening tests and only 55 for the speaking tests).

Lack of experience in using new materials and a new instructional approach, as mentioned above, is another consideration. Lack of lead time in getting the project under way meant that orientation sessions for teachers were necessarily very brief. The field consultants held teacher orientation meetings prior to the beginning of instruction, but it was impossible to hold meetings between teachers and authors until several weeks after instruction had begun. Teachers began instruction in most cases with insufficient information concerning course objectives, materials, and procedures.

MLA materials were not received by some classes until some time after the start of the semester. Until the materials arrived, teachers conducting these classes improvised Spanish instruction in a variety of ways, using a variety of materials.

The use of tape recordings for presentation of the Spanish stimuli on the listening comprehension tests may have caused a problem for students who had only heard Spanish from a live teacher and from other students. Recording student oral responses during individual speaking tests may also have been a cause of apprehension and inhibition on the part of students.

The MLA materials were originally designed for third graders. One of the course authors provided supplementary exercises for each unit to incorporate recent developments in applied linguistics and to adapt the materials to sixth graders. However, it is possible that this necessarily hasty modification of materials did not completely satisfy requirements for the sixth-grade group.

Furthermore, the length of the tests, especially in vocabulary, may have caused students to tire during testing, thereby lowering scores somewhat. The use of English stimuli to elicit responses in Spanish on the speaking vocabulary test has already been discussed in the section describing the test instruments. There is also the general limitation inherent in this type of testing in that students are responding to isolated utterances, outside of the situational context found in both normal conversation and, to a large degree, in the instruction.

TABLE 16

SUMMARY DATA FOR ALL MLA LISTENING COMPREHENSION TESTS

Test	Maximum Possible Score	Mean Score	Mean Score as Percentage	Standard Deviation	N
Midterm vocabulary..................	132	99.05	75.03	17.95	439
Midterm vocabulary.................. (as part of final test)	132	104.69	79.31	18.25	389
Midterm grammar.....................	37	23.20	62.70	5.66	440
Midterm grammar..................... (as part of final test)	37	25.00	67.56	5.84	397
Final vocabulary....................	270	192.62	71.34	40.55	389
Final grammar.......................	69	41.94	60.78	11.01	395
Final grammar transfer..............	34	16.24	47.76	5.76	404

TABLE 17

SUMMARY DATA FOR ALL MLA SPEAKING TESTS*

Test	Maximum Possible Score	Mean Score	Mean Score as Percentage	Standard Deviation	N
Vocabulary............................	264	74.42	28.18	36.25	54
Grammar............................ (entire utterance)	60	5.58	9.30	4.64	55
Grammar............................ (discrete elements)	60	9.90	16.50	6.58	55
Grammar transfer..................... (entire utterance)	30	1.52	5.06	1.73	55
Grammar transfer..................... (discrete elements)	30	2.98	9.93	2.67	55
Pronunciation........................ (constructed response)	42	14.54	34.61	6.09	55
Pronunciation........................ (mimicry)	42	21.38	50.90	6.57	55

*All final tests.

TABLE 18

FREQUENCY DISTRIBUTION OF SCORES ON FINAL MLA LISTENING COMPREHENSION VOCABULARY TEST

Percentage of Items Correct	Percentage of Students
91 - 100	9.0
81 - 90	23.6
71 - 80	26.5
61 - 70	19.3
51 - 60	12.6
41 - 50	5.4
31 - 40	2.3
21 - 30	1.3
11 - 20	0
0 - 10	0
	100.0

TABLE 19

FREQUENCY DISTRIBUTION OF SCORES ON FINAL MLA LISTENING COMPREHENSION GRAMMAR TEST

Percentage of Items Correct	Percentage of Students
91 - 100	1.3
81 - 90	6.1
71 - 80	24.8
61 - 70	24.0
51 - 60	20.5
41 - 50	12.9
31 - 40	6.8
21 - 30	2.0
11 - 20	.8
0 - 10	.8
	100.0

TABLE 20

FREQUENCY DISTRIBUTION OF SCORES ON FINAL MLA LISTENING COMPREHENSION GRAMMAR TRANSFER TEST

Percentage of Items Correct	Percentage of Students
91 - 100	0
81 - 90	1.5
71 - 80	8.9
61 - 70	13.9
51 - 60	24.5
41 - 50	20.0
31 - 40	20.8
21 - 30	5.5
11 - 20	2.7
0 - 10	2.2
	100.0

TABLE 21

FREQUENCY DISTRIBUTION OF SCORES ON MIDTERM MLA LISTENING COMPREHENSION VOCABULARY TEST

Percentage of Items Correct	Percentage of Students
91 - 100	15.0
81 - 90	32.6
71 - 80	23.5
61 - 70	16.2
51 - 60	8.7
41 - 50	2.5
31 - 40	1.1
21 - 30	.5
11 - 20	0
0 - 10	0
	100.0

TABLE 22

FREQUENCY DISTRIBUTION OF SCORES ON MIDTERM MLA LISTENING COMPREHENSION VOCABULARY TEST
(as part of final test)

Percentage of Items Correct	Percentage of Students
91 - 100	32.6
81 - 90	25.9
71 - 80	21.1
61 - 70	11.3
51 - 60	6.2
41 - 50	1.8
31 - 40	.8
21 - 30	0
11 - 20	0
0 - 10	.3
	100.0

TABLE 23

FREQUENCY DISTRIBUTION OF SCORES ON MIDTERM MLA LISTENING COMPREHENSION GRAMMAR TEST

Percentage of Items Correct	Percentage of Students
91 - 100	1.4
81 - 90	10.5
71 - 80	17.5
61 - 70	31.4
51 - 60	19.8
41 - 50	11.1
31 - 40	5.2
21 - 30	1.8
11 - 20	1.1
0 - 10	.2
	100.0

TABLE 24

FREQUENCY DISTRIBUTION OF SCORES ON MIDTERM MLA LISTENING COMPREHENSION GRAMMAR TEST
(as part of final test)

Percentage of Items Correct	Percentage of Students
91 - 100	4.8
81 - 90	16.9
71 - 80	22.2
61 - 70	28.2
51 - 60	13.3
41 - 50	7.3
31 - 40	5.0
21 - 30	1.3
11 - 20	1.0
0 - 10	0
	100.0

TABLE 25

FREQUENCY DISTRIBUTION OF SCORES ON FINAL MLA SPEAKING VOCABULARY TEST

Percentage of Items Correct	Percentage of Students
91 - 100	0
81 - 90	0
71 - 80	0
61 - 70	3.7
51 - 60	5.5
41 - 50	7.4
31 - 40	24.1
21 - 30	31.5
11 - 20	18.5
0 - 10	9.3
	100.0

TABLE 26

FREQUENCY DISTRIBUTION OF SCORES ON FINAL MLA SPEAKING GRAMMAR TEST
(discrete elements)

Percentage of Items Correct	Percentage of Students
91 - 100	0
81 - 90	0
71 - 80	0
61 - 70	0
51 - 60	0
41 - 50	3.6
31 - 40	10.9
21 - 30	21.8
11 - 20	36.4
0 - 10	27.3
	100.0

TABLE 27

FREQUENCY DISTRIBUTION OF SCORES ON FINAL MLA SPEAKING GRAMMAR TEST (entire utterance)

Percentage of Items Correct	Percentage of Students
91 - 100	0
81 - 90	0
71 - 80	0
61 - 70	0
51 - 60	0
41 - 50	0
31 - 40	3.6
21 - 30	7.3
11 - 20	27.3
0 - 10	61.8
	100.0

TABLE 28

FREQUENCY DISTRIBUTION OF SCORES ON FINAL MLA SPEAKING GRAMMAR TRANSFER TEST (discrete elements)

Percentage of Items Correct	Percentage of Students
91 - 100	0
81 - 90	0
71 - 80	0
61 - 70	0
51 - 60	0
41 - 50	0
31 - 40	7.3
21 - 30	7.3
11 - 20	34.5
0 - 10	50.9
	100.0

TABLE 29

FREQUENCY DISTRIBUTION OF SCORES ON FINAL MLA SPEAKING GRAMMAR TRANSFER TEST (entire utterance)

Percentage of Items Correct	Percentage of Students
91 - 100	0
81 - 90	0
71 - 80	0
61 - 70	0
51 - 60	0
41 - 50	0
31 - 40	0
21 - 30	5.5
11 - 20	12.7
0 - 10	81.8
	100.0

TABLE 30

FREQUENCY DISTRIBUTION OF SCORES ON FINAL MLA SPEAKING PRONUNCIATION TEST (mimicry)

Percentage of Items Correct	Percentage of Students
91 - 100	0
81 - 90	5.0
71 - 80	8.3
61 - 70	18.3
51 - 60	11.7
41 - 50	25.0
31 - 40	26.7
21 - 30	5.0
11 - 20	0
0 - 10	0
	100.0

TABLE 31

FREQUENCY DISTRIBUTION OF SCORES ON FINAL MLA SPEAKING PRONUNCIATION TESTS
(constructed response)

Percentage of Items Correct	Percentage of Students
91 - 100	0
81 - 90	0
71 - 80	3.3
61 - 70	1.7
51 - 60	6.7
41 - 50	20.0
31 - 40	28.3
21 - 30	23.3
11 - 20	13.3
0 - 10	3.3
	99.9

TABLE 32

STUDENT CHARACTERISTICS IN MLA CLASSES, SHOWING THE DISTRIBUTION OF MEAN CHARACTERISTICS ACCORDING TO A RANKING OF CLASSES BY MEAN SCORE IN FINAL LISTENING COMPREHENSION VOCABULARY*

Class Rank	Mean Score as Percentage of Maximum Possible Score in Listening Vocabulary	Student Characteristics	
		Mean IQ	Mean Reading Grade Placement
1	83.45	122.22	6.79
2	82.88	117.46	6.67
3	81.49	105.25	--
4	81.37	100.80	5.77
5	80.54	111.06	6.46
6	80.35	114.83	6.84
7	76.66	114.66	5.71
8	73.64	101.96	5.35
9	71.78	113.40	6.01
10	71.44	107.58	5.97
11	65.37	109.22	6.17
12	64.68	108.47	6.03
13	61.04	106.26	6.08
14	60.28	119.50	6.06
15	58.22	105.56	6.04
16	57.77	84.92	4.42
17	56.21	102.44	5.25
18	50.74	103.85	4.87

*The listening comprehension vocabulary test was chosen for this presentation because achievement on it was higher than on any other test and provided a relatively wide dispersion of scores. Independent variables were chosen for this presentation on the basis of having some degree of variability among classes.

TABLE 33

TEACHER CHARACTERISTICS IN MLA CLASSES, SHOWING THE DISTRIBUTION OF CHARACTERISTICS ACCORDING TO A RANKING OF CLASSES BY MEAN SCORE IN FINAL LISTENING COMPREHENSION VOCABULARY[*]

Class Rank	Mean Score as Percentage of Maximum Possible Score in Listening Vocabulary	Teacher Characteristics			
		Experience Teaching Spanish[†]	Fluency in Spanish[‡]	Training in Spanish[§]	Preinstruction Attitude Toward Spanish for Sixth Graders[//]
1	83.45	4	2	4	1
2	82.88	2	2	3	1
3	81.49	2	2	4	1
4	81.37	4	2	3	1
5	80.54	2	2	3	1
6	80.35	1	3	2	1

[*] The listening comprehension vocabulary test was chosen for this presentation because achievement on it was higher than on any other test, and it provided a relatively wide dispersion of scores. Independent variables were chosen for this presentation on the basis of having some degree of variability among classes.

[†] 1 Five years or more
2 Less than five years
3 Taught another language
4 No experience teaching foreign language

[‡] 1 Little or no fluency
2 Some fluency
3 Native or near-native fluency

[§] 1 Native language
2 Studied in Spanish-speaking country
3 At least one year
4 Less than one year

[//] 1 Extremely worthwhile
2 Fairly worthwhile
3 Can't do harm
4 Shouldn't be undertaken

TABLE 33 continued

Class Rank	Mean Score as Percentage of Maximum Possible Score in Listening Vocabulary	Teacher Characteristics			
		Experience Teaching Spanish[†]	Fluency in Spanish[‡]	Training in Spanish[§]	Preinstruction Attitude Toward Spanish for Sixth Graders[//]
7	76.66	4	2	4	1
8	73.64	2	3	1	1
9	71.78	2	3	1	1
10	71.44	2	2	2	2
11	65.37	2	3	1	1
12	64.68	2	3	1	2
13	61.04	2	3	1	1
14	60.28	4	3	1	1
15	58.22	1	3	1	1
16	57.77	4	1	3	1
17	56.21	4	3	1	2
18	50.74	2	3	1	1

TABLE 34

USE OF ENGLISH IN MLA CLASSES ACCORDING TO A RANKING OF CLASSES BY MEAN SCORE IN FINAL LISTENING COMPREHENSION VOCABULARY*

Class Rank	Mean Score As Percentage of Maximum Possible Score in Listening Vocabulary	Classroom Characteristics	
		Student Use of English in Class	Teacher Use of English in Class
1	83.45	Rarely	Rarely
2	82.88	Rarely	Sometimes
3	81.49	Sometimes	Frequently
4	81.37	Rarely	Rarely
5	80.54	Sometimes	Sometimes
6	80.35	Rarely	Rarely
7	76.66	Rarely	Rarely
8	73.64	Rarely	Rarely
9	71.78	Rarely	Rarely
10	71.44	Sometimes	Sometimes
11	65.37	Sometimes	Sometimes
12	64.68	Sometimes	Sometimes
13	61.04	Rarely	Rarely
14	60.28	Rarely	Rarely
15	58.22	Rarely	Rarely
16	57.77	Frequently	Frequently
17	56.21	Sometimes	Rarely
18	50.74	Rarely	Sometimes

*The listening comprehension vocabulary test was chosen for this presentation because achievement on it was higher than on any other test, and it provided a relatively wide dispersion of scores. Independent variables were chosen for this presentation on the basis of having some degree of variability among classes.

TABLE 35

CORRELATION MATRIX SHOWING RELATIONSHIPS OF STUDENT CHARACTERISTICS TO LISTENING COMPREHENSION TEST PERFORMANCE IN MLA CLASSES

Test	Student Characteristics											
	IQ	Grade Point Average	Reading Grade Placement	Age	Sex*	Father's Occupation†	Mother's Occupation	Previous Training in Spanish	Spanish Spoken in Home	Preinstruction Confidence	Preinstruction Interest	Listening Pretest Score
Midterm vocabulary......	45	46	47	-32	21	24	10	23	04	22	0	23
Midterm vocabulary...... (as part of final test)	42	43	46	-24	22	20	11	12	08	29	09	07
Midterm grammar.........	43	44	45	-29	19	19	06	24	06	23	-01	30
Midterm grammar......... (as part of final test)	42	43	44	-27	21	18	12	17	06	28	01	17
Final vocabulary........	46	49	53	-27	22	23	10	12	07	35	10	09
Final grammar...........	46	46	49	-28	24	23	12	17	05	31	03	16
Final grammar transfer..	45	47	45	-23	24	19	04	18	03	27	06	23

* Correlations computed from code with 1 equal to male and 2 equal to female, so that positive correlations suggest slight female superiority.

† This is a socio-economic scale.

TABLE 36

CORRELATION MATRIX SHOWING RELATIONSHIPS OF STUDENT CHARACTERISTICS TO SPEAKING TEST PERFORMANCE IN MLA CLASSES

Test	Student Characteristics											
	IQ	Grade Point Average	Reading Grade Placement	Age	Sex*	Father's Occupation	Mother's Occupation	Previous Training in Spanish	Spanish Spoken in Home	Preinstruction Confidence	Preinstruction Interest	Listening Pretest Score
Speaking grammar......... (entire utterance)	51	57	42	-32	26	40	-16	-08	-07	36	11	-06
Speaking grammar......... (discrete elements)	56	60	39	-34	26	37	-11	-02	-10	39	07	-02
Speaking grammar transfer (entire utterance)	36	50	38	-12	31	28	-15	-20	-12	43	15	-01
Speaking grammar transfer (discrete elements)	35	46	30	-20	34	22	-12	-14	-05	47	19	0
Speaking vocabulary......	38	58	34	-43	20	34	-08	-01	01	33	15	-06
Speaking pronunciation... (constructed response)	44	34	30	-12	0	14	0	10	03	01	-11	23
Speaking pronunciation... (mimicry)	52	47	50	-29	14	24	-04	11	01	22	-02	17

* Correlations computed from code with 1 equal to male and 2 equal to female, so that positive correlations suggest slight female superiority.

[7] This is a socio-economic scale.

TABLE 37

CORRELATION MATRIX SHOWING RELATIONSHIPS OF TEACHER CHARACTERISTICS TO LISTENING COMPREHENSION TEST PERFORMANCE IN MLA CLASSES

Test	Teacher Characteristics								
	Fluency in Spanish	Training in Spanish	Experience Teaching Spanish	Preinstruction Attitude Toward Spanish for Sixth Graders	Postinstruction Attitude Toward Spanish for Sixth Graders	Preinstruction Enjoyment in Teaching Spanish in Project	Postinstruction Enjoyment in Teaching Spanish in Project	Age	Sex*
Midterm vocabulary.........	-07	-35	13	20	-03	-15	20	-05	0
Midterm vocabulary......... (as part of final test)	-20	-44	11	21	02	0	17	07	08
Midterm grammar............	03	-21	15	23	01	-12	24	-07	-07
Midterm grammar............ (as part of final test)	-15	-37	09	18	05	0	18	04	11
Final vocabulary..........	-23	-46	07	24	04	0	16	01	03
Final grammar.............	-15	-38	13	21	07	0	20	02	09
Final grammar transfer.....	-06	-27	14	14	08	0	20	-02	08

* Correlations computed from code with 1 equal to male and 2 equal to female.

TABLE 38

CORRELATION MATRIX SHOWING RELATIONSHIPS OF TEACHER CHARACTERISTICS TO SPEAKING TEST PERFORMANCE IN MLA CLASSES

Test	Teacher Characteristics								
	Fluency in Spanish	Training in Spanish	Experience Teaching Spanish	Preinstruction Attitude Toward Spanish for Sixth Graders	Postinstruction Attitude Toward Spanish for Sixth Graders	Preinstruction Enjoyment in Teaching Spanish in Project	Postinstruction Enjoyment in Teaching Spanish in Project	Age	Sex*
Speaking grammar........... (entire utterance)	-23	-35	07	29	-03	0	-08	08	08
Speaking grammar........... (discrete elements)	-28	-45	04	30	-05	0	-06	08	04
Speaking grammar transfer.. (entire utterance)	-04	-21	05	12	-08	0	-02	-15	-16
Speaking grammar transfer.. (discrete elements)	-13	-26	-01	14	-03	0	-10	-16	-01
Speaking vocabulary........	-29	-49	01	13	-28	0	-15	04	17
Pronunciation............. (constructed response)	17	03	21	18	05	0	21	-19	-24
Pronunciation............. (mimicry)	18	04	30	10	-05	0	15	-18	-14

* Correlations computed from code with 1 equal to male and 2 equal to female.

TABLE 39

CORRELATION MATRIX SHOWING RELATIONSHIPS OF CLASSROOM AND DISTRICT CHARACTERISTICS TO LISTENING COMPREHENSION TEST PERFORMANCE IN MLA CLASSES

Test	Classroom Characteristics										District Characteristics		
	Size of Class	Supplementary Use of Visuals	Supplementary Use of Records	Supplementary Use of Songs and Games	Supplementary Use of Films	Supplementary Use of Texts	Supplementary Use of Tests	Teacher Use of English in Class	Student Use of English in Class	Teacher Serves as Speaking Model	Size	Population Density	Type of State Support
Midterm vocabulary......	-20	18	01	04	19	21	-33	-21	-34	40	33	12	23
Midterm vocabulary...... (as part of final test)	-16	16	-01	-06	18	14	-27	-09	-30	30	34	05	20
Midterm grammar.........	-11	10	-01	0	14	17	-22	-23	-35	37	29	17	23
Midterm grammar......... (as part of final test)	-20	05	-07	-10	19	15	-26	-15	-35	42	30	07	16
Final vocabulary........	-05	13	04	0	13	09	-30	-06	-27	38	32	07	24
Final grammar...........	-13	08	-05	-07	17	13	-26	-13	-34	42	33	11	20
Final grammar transfer..	-14	04	-05	-07	14	17	-21	-17	-34	38	26	11	15

TABLE 40

CORRELATION MATRIX SHOWING RELATIONSHIPS OF CLASSROOM AND DISTRICT CHARACTERISTICS TO SPEAKING TEST PERFORMANCE IN MLA CLASSES

Test	Classroom Characteristics										District Characteristics		
	Size of Class	Supplementary Use of Visuals	Supplementary Use of Records	Supplementary Use of Songs and Games	Supplementary Use of Films	Supplementary Use of Texts	Supplementary Use of Tests	Teacher Use of English in Class	Student Use of English in Class	Teacher Serves as Speaking Model	Size	Population Density	Type of State Support
Speaking grammar............ (entire utterance)	05	19	04	03	17	-12	-24	13	-05	15	29	11	33
Speaking grammar............ (discrete elements)	-03	25	04	01	18	-11	-27	14	-09	17	34	08	33
Speaking grammar transfer.... (entire utterance)	15	20	23	20	-10	-19	-24	05	0	04	15	08	29
Speaking grammar transfer.... (discrete elements)	07	05	14	13	-01	-17	-22	05	-01	01	16	05	30
Speaking vocabulary..........	-27	33	0	-17	32	01	-35	08	-16	26	36	08	14
Pronunciation............... (constructed response)	03	06	12	16	-03	04	-16	-19	-28	30	05	04	20
Pronunciation............... (mimicry)	14	12	03	0	07	-01	-01	-14	-21	31	30	35	16

TABLE 41

MULTIPLE CORRELATION COEFFICIENTS ON MLA LISTENING COMPREHENSION TESTS

Test	Independent Variables				
	Five Student Variables[*]	Five Teacher Variables[†]	Eleven Classroom and District Variables[‡]	Six Independent Variables[§]	Seven Independent Variables Selected by Computer Program[//]
Midterm vocabulary..........	55	56	60	57	62
Midterm grammar.............	53	47	52	53	52
Final vocabulary............	63	57	55	65	59
Final grammar...............	58	53	55	62	59
Final grammar transfer......	55	44	47	58	51

[*] IQ, grade point average, reading grade placement, preinstruction confidence and interest. These were selected by the investigators.

[†] Fluency in Spanish, training in Spanish, experience teaching Spanish, preinstruction attitude toward Spanish for sixth graders, preinstruction enjoyment in teaching Spanish in project. These were selected by the investigators.

[‡] Size of class, supplementary use of visuals, tapes or records, songs or games, films, tests, teacher's use of English in class, students' use of English in class, teacher serving as speaking model, size of district, type of state support received by district. These were selected by the investigators.

[§] Student: IQ and preinstruction interest; teacher: fluency in Spanish, and preinstruction attitude toward Spanish for sixth graders; classroom: teacher's use of English in class, and teacher serving as speaking model. These were selected by the investigators.

[//] Teacher: fluency in Spanish, training in Spanish, and preinstruction attitude toward Spanish for sixth graders; classroom: supplementary use of songs or games, films, student's use of English in class, and teacher serving as speaking model. These were selected by computer program.

TABLE 42

MULTIPLE CORRELATION COEFFICIENTS ON MLA SPEAKING TESTS

Test	Independent Variables				
	Five Student Variables[*]	Five Teacher Variables[†]	Eleven Classroom and District Variables[‡]	Six Independent Variables[§]	Seven Independent Variables Selected by Computer Program[//]
Speaking vocabulary.........	61	56	68	60	65
Speaking grammar........... (entire utterance)	64	43	55	63	44

[*] IQ, grade point average, reading grade placement, preinstruction confidence and interest. These were selected by the investigators.

[†] Fluency in Spanish, training in Spanish, experience teaching Spanish, preinstruction attitude toward Spanish for sixth graders, preinstruction enjoyment in teaching Spanish in project. These were selected by the investigators.

[‡] Size of class, supplementary use of visuals, tapes or records, songs or games, films, tests, teacher's use of English in class, students' use of English in class, teacher serving as speaking model, size of district, type of state support received by district. These were selected by the investigators.

[§] Student: IQ and preinstruction interest; teacher: fluency in Spanish, and preinstruction attitude toward Spanish for sixth graders; classroom: teacher's use of English in class, and teacher serving as speaking model. These were selected by the investigators.

[//] Teacher: fluency in Spanish, training in Spanish, and preinstruction attitude toward Spanish for sixth graders; classroom: supplementary use of songs or games, films, student's use of English in class, and teacher serving as speaking model. These were selected by computer program.

TABLE 42 continued

Test	Independent Variables				
	Five Student Variables[*]	Five Teacher Variables[†]	Eleven Classroom and District Variables[‡]	Six Independent Variables[§]	Seven Independent Variables Selected by Computer Program[//]
Speaking grammar............ (discrete elements)	70	52	62	69	54
Speaking grammar transfer... (entire utterance)	60	32	47	41	37
Speaking grammar transfer... (discrete elements)	59	31	48	44	35
Pronunciation............... (constructed response)	46	34	48	53	50
Pronunciation............... (mimicry)	59	37	55	59	45

TABLE 43

INTERCORRELATION MATRIX FOR ALL MLA TESTS*

Test	Midterm Vocabulary	Midterm Grammar	Listening Vocabulary	Listening Grammar	Listening Grammar Transfer	Pronunciation (constructed response)	Pronunciation (mimicry)	Speaking Grammar (entire utterance)	Speaking Grammar (discrete elements)	Speaking Grammar Transfer (entire utterance)	Speaking Grammar Transfer (discrete elements)	Speaking Vocabulary
Midterm vocabulary.........		78	83	80	71	46	45	58	57	36	41	68
Midterm grammar............			68	68	63	37	46	45	46	30	35	48
Listening vocabulary.......				87	77	51	50	68	72	54	60	84
Listening grammar..........					80	47	52	57	64	43	48	71
Listening grammar transfer................						55	51	58	63	47	49	64
Pronunciation.............. (constructed response)							70	41	39	34	29	32
Pronunciation.............. (mimicry)								58	53	52	49	46

*To simplify presentation, the decimal point is not shown. Each coefficient is carried to the nearest hundredth.

TABLE 43 -- continued

Test	Midterm Vocabulary	Midterm Grammar	Listening Vocabulary	Listening Grammar	Listening Grammar Transfer	Pronunciation (constructed response)	Pronunciation (mimicry)	Speaking Grammar (entire utterance)	Speaking Grammar (discrete elements)	Speaking Grammar Transfer (entire utterance)	Speaking Grammar Transfer (discrete elements)	Speaking Vocabulary
Speaking grammar........... (entire utterance)									95	79	80	73
Speaking grammar........... (discrete elements)										74	80	78
Speaking grammar transfer.. (entire utterance)											90	65
Speaking grammar transfer.. (discrete elements)												73
Speaking vocabulary........												

CHAPTER VI

RESULTS AND CONCLUSIONS FOR SPA

Summary of All Tests

Upon completion of the course, sixteen final tests were administered to the students (three in listening comprehension; three in reading; six in speaking; and four in writing). Tables 44-46 present overall results.

Unfortunately, only about 10 percent of the total number of students who received the SPA course completed the program, and only these students received the final examination. The number of students taking the final examination varied between 44-49. This was due mainly to the fact that in many instances, instructional materials (tapes and programmed texts) and tape recorders were not received until some weeks or even months after the beginning of the school year. The students completing the program primarily came from those schools that first received materials. However, many students in these same schools did not complete the program; thus, late receipt of materials was not the only explanation for the fact that many students were unable to reach the end of the program by the end of the school year.

The small group who completed the SPA program, 54 of approximately 600 students, might have represented a biased subsample consisting of those students who were more highly motivated and/or had higher ability. However, queries directed to the teachers revealed that this group also included students of low and average ability who raced through the program without working the exercises appropriately so that they could keep pace with friends or could be among the first to finish.

It was found that the students completing the course were not appreciably different from the students who did not complete the course in IQ, reading grade placement, previous training in Spanish, score on the Spanish pretest, and pre-instructional interest and confidence.

Achievement in terms of mean score as a percentage of the maximum possible score ranged from a high of 87 percent in listening comprehension vocabulary to a low of 12 percent in speaking grammar transfer scored on the basis of entire utterance. The achievement in listening comprehension and reading was considerably higher than in speaking and writing. Of the four skills, the students did best in listening comprehension and poorest in speaking.

Most of the tests resulted in a wide distribution of scores. However, on several of the speaking tests, most scores fell at the low end of the scale. Only the listening comprehension vocabulary test showed a skewed distribution, with most of the scores clustered at the high end of the scale.

Listening Comprehension and Reading

Tables 47-52 contain frequency distributions of scores on the listening comprehension and reading tests. The highest achievement in SPA was in listening comprehension. In listening comprehension vocabulary, the mean score was 87 percent of the maximum possible score. Table 44 indicates that there was not a wide dispersion of scores. On this test, 56 percent of the students achieved higher than the 90 percent mastery level, and 75 percent of the students scored above the 80 percent level (Table 47). Only 8 percent of the students scored lower than the 70 percent level.

Achievement on the listening comprehension grammar test (Table 48) was lower than on the listening comprehension vocabulary test, and there was also a wider distribution of scores. The mean was 72 percent of the maximum possible score, with only 6 percent of the students reaching the 90 percent mastery level; 36 percent of the students scored between 61 and 80 percent; and 27 percent of the students achieved below the 61 percent level. The listening comprehension grammar transfer results (Table 49) were comparable to the grammar test results. The reading vocabulary, grammar and grammar transfer test results, shown in Tables 54 through 56, closely parallel those of the listening comprehension tests.

Performance on the midterm listening comprehension vocabulary and grammar tests (vocabulary and grammar learned through Unit 30 of the course), was not significantly different from performance when the test was given again at the end of the course as part of the final examination. Apparently, what was learned during the first half of the course was retained as new material was introduced, but learning of first half material did not increase significantly during the last half of the course. The correlation between scores on the midterm and on this same test given at the end of instruction was .77 in vocabulary and .62 in grammar. Frequency distributions of scores on the midterm vocabulary and grammar tests for both the midterm performance and the final performance are shown in Tables 50 through 53.

Speaking and Writing

Achievement in speaking and writing was much lower than in listening comprehension and reading (see Tables 57-70). In speaking vocabulary, the mean was only 55 percent of the maximum possible score. Table 57 indicates a considerable spread of scores for the speaking vocabulary test, showing 12 percent of the students scoring over the 80 percent level, 36 percent of the students scoring between 61 and 80 percent, 23 percent between the 41 and 60 percent levels and 28 percent of the students scoring under 40 percent.

The means of the four speaking grammar and grammar transfer scores were even lower than in vocabulary. The four values varied from 12 to 27 percent of the maximum possible score. There was little variability, with most of the scores falling at the low end of the distribution. Results were lower when scoring was on the entire utterance than when based on discrete elements. The writing vocabulary, grammar, and grammar transfer results shown in Tables 65 through 69 closely parallel those of the speaking tests.

In pronunciation, performance on mimicry (mean of 74 percent) was highest, oral reading (mean of 60 percent) next, and constructed response (mean of 55 percent) lowest. The constructed response scores, however, were depressed because the students did not respond to some items and, therefore, could receive no credit for pronunciation. Spelling vocabulary scores were also somewhat depressed because students did not respond to some vocabulary items and, therefore, could not receive credit for spelling. The frequency distribution of scores in spelling is shown in Table 70.

Interest and Confidence

There were no significant differences between students' mean pre- and postinstruction interest and pre- and postinstruction confidence. However, the correlations between pre- and postinstruction scores were low (.19 for interest, and .23 for confidence).

Correlation and Regression Analyses

Tables 71 - 79 present the correlations of student, teacher, classroom, and district characteristics with performances on the various tests. These data indicate that, for predictive purposes, none of the independent variables had a sufficiently strong and consistent relationship to student learning to merit much attention.

These correlations were expected to be relatively low because of the lack of control over classroom environment in the study. The small number of students who completed the SPA course makes any extensive interpretation of these low correlations unrealistic.

To determine the extent to which different combinations of independent variables were related to achievement using SPA materials, a computer program was employed which takes a matrix of intercorrelations and computes the regression of multiple independent variables on given dependent variables. The results of five regression analyses are shown in Tables 80 through 82.

For the five regression analyses, all dependent variables were used, and five sets of independent variables:[1] (1) five student variables; (2) five teacher variables; (3) eight classroom variables; (4) four variables selected by the computer program as a "good" subset in terms of the amount of variance in the dependent variable associated with the subset;[2] and (5) six variables from all categories.

These regression analyses indicated that the combinations of independent variables were more highly related to student achievement than were any of the individual variables. There was some tendency for the eight classroom variables to show a higher relationship to learning than was the case with teacher or student variables, a surprising finding in light of the self-instructional features of the SPA materials. Again, the small number of students completing the SPA course must qualify any interpretation of this finding, but it does suggest that classroom characteristics may play more of a role in student learning from self-instructional materials than has been suspected.

In general, the sizes of the multiple regression coefficients indicated that the independent variables measured in this study accounted for a relatively small percentage of the learning associated with the use of SPA materials.

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[1] In each case, those variables were selected which the investigators felt would potentially relate most strongly to achievement, except when the selection was made by computer.

[2] A "good" subset here was one of several, having high multiple regression coefficients, all of which were statistically equivalent. For a discussion of the criteria and methods used by the computer program to select a good subset, see L. Villone, R. McCornack, and K. Wood, Multiple Regression with Subsetting of Variables, System Development Corporation Document FN-6622/0/0, June 1962.

Intercorrelations Among All Tests

Tables 83 through 88 present the intercorrelations among all SPA tests. The intercorrelations among the final listening comprehension tests, the reading tests, and the writing tests respectively were generally high, most of them falling in the .80's and .90's. The intercorrelations involving the speaking vocabulary, grammar, and grammar transfer tests were also generally high, (mostly in the .90's), but correlations of speaking grammar transfer (discrete elements) and other speaking tests produced values varying from .54 to .64.

The three pronunciation tests have the lowest correlations, both with each other (.48, .57, and .70) and with all other tests. The correlations with other tests vary from .35 to .90, with most of the values under .60. The correlations between listening and reading tests were quite high; the same was true between speaking and writing. However, the correlations of listening or reading tests with either speaking or writing were much lower.

Discussion

The listening and reading comprehension vocabulary scores were the highest of all tests and were close to the kind of results frequently claimed, but seldom achieved, by programmed learning (i.e., most students mastering most of the material presented and differing only in the amount of time to complete the course). The mean achievement in listening comprehension vocabulary was 87 percent, and in reading vocabulary, 85 percent, with a relatively small dispersion of scores.

In general, the results of the listening and reading comprehension grammar and grammar transfer tests, though short of expectations for programmed instruction, yielded reasonably good student performance by conventional standards. However, performance on most of these tests was contrary to claims that programmed instruction eliminates individual variability in achievement.

The speaking and writing results were considerably lower than those in listening comprehension and reading, and far below expectations for programmed instruction. On the speaking vocabulary test, mean achievement was 55 percent, with only 13 percent of the students scoring above the 80 percent level. In writing vocabulary, the mean was 60 percent, with 21 percent of the students' scores above the 80 percent level. In speaking and writing grammar and grammar transfer, very few students scored above the 50 percent mastery level.

The drop in scores from grammar to grammar transfer, where the student was not provided with a stimulus that included all the words needed for his speaking and writing responses, may indicate that the students need more practice in initiating utterances, in contrast to responding to Spanish stimuli.

The sharp drop in speaking and writing grammar and grammar transfer scores, when scoring was on the entire utterance (i.e., student response had to be completely error-free to be marked correct), indicated that even where the discrete grammatical elements were correct, the students were making very few perfect responses.

Since speaking was the least well learned of the four skills, questions may be raised concerning contributing factors and possible solutions. For example, to what extent is the lack of objective feedback to the student on the correctness or incorrectness of his oral responses a factor? Is the fact that the student "converses" only with a tape-recorded teacher an important constraint in language learning?

The course provided discrimination training that was intended to enable the student to more effectively monitor and critically evaluate his own pronunciation. However, in this study it was not possible to determine the extent to which this training in discriminating between the sounds of Spanish and English contributed to improved performance in pronunciation. Further, there is a need to know how well the student was able to monitor and critically evaluate his own speech in regard to morphology and syntax and what techniques can be developed to help him do so more effectively.

The course author recommended teacher-conducted "conversational display sessions" every fifth unit for students who were at the same place in the program. This was to provide the students with an opportunity to use their new Spanish outside the context of the program. There was no evidence in this study that the display sessions had any effect on achievement. However, since none of the teachers had an opportunity to take the program ahead of the students, their ability to conduct the display sessions effectively may have been limited.

The results suggest that modifications to the materials may be needed to improve student performance. Appendix B contains the student performance data (percent of students responding correctly) for each specific vocabulary and grammatical element. Those elements which very few or no students learned would require special attention.

An alternative to modifying the materials would be to have students repeat the program or portions of it. However, this would seem highly inefficient and would probably result in boredom and fatigue rather than in improvement of learning.

The results indicate that very few students would be prepared for the next sequence of instruction (Spanish B) in speaking and writing. Many would, however, be ready for the next sequence in listening comprehension and reading. As SPA is designed, it is not possible to repeat units for the purpose of additional practice in one particular skill. (Thus, a student who was having difficulty only in writing would have to repeat items in all four skills.) Ideally, it would seem that when a language program has the objective of teaching the four basic language skills (listening, speaking, reading, and writing) it should be so designed as to enable pupils to receive training in any particular skill, where there is a need, without having to receive training in all skills.

One could argue that the poor performance and the variation in performance on many of the criterion variables should have been eliminated through the pretesting and revision procedures used in developing programmed materials. A possible explanation of the results of this study may be a failure to carry out these procedures adequately.

However, SPA was not developed specifically for sixth-grade pupils. It was developed using elementary, secondary, and college students. It may be that if the commonly accepted ideal of programmed learning (having 90 percent or more of the students master 90 percent or more of the material) is to be achieved, the materials must be designed for a more restricted population of students and must go through a more extensive pretest and revision cycle, using larger numbers of subjects from the target group than is customary.

One explanation of the poor results in speaking can be found in reports by field consultants and teachers indicating that many students did not follow instructions, e.g., did not make overt, oral responses as required by the program. With closer supervision and greater involvement on the part of the teachers in creating the proper learning environment, the results might have been different. This leads to a basic question which should be answered before valid conclusions can be drawn concerning the use of SPA with sixth-grade pupils: To what extent were the results of this study a function of problems connected with the initial implementation of new materials and a new instructional approach (i.e., to what degree were the materials and equipment misused due to lack of teacher experience)? In other words, were the results representative of what might be expected after administrators and teachers had experience in using the materials? There is considerable evidence that the way materials are used may be as important as the materials themselves. In this study, field reports indicated that some students went through units rapidly, without making responses, in order to keep up with or ahead of friends. It would seem highly appropriate to repeat the present study in school districts that have various amounts of experience in using the materials before drawing definite conclusions about their use with sixth-grade students.

The present project also suggests that longitudinal studies should be conducted to answer important questions about foreign language learning. For example, is there an optimum level of mastery that should be reached in one of the four basic skills before the student undertakes another? Can a hierarchy in level of difficulty be established for vocabulary and grammatical elements through studying the relationship between student performance data and amount of practice provided in each linguistic element within a given skill? If so, such an analysis could serve to validate predictions derived from contrastive analyses as to difficulties involved in certain specific aspects of foreign language learning. The results could be used in the modification of existing materials and in the design of new materials. Longitudinal studies could also be conducted to shed light on the length of time (i.e., hours of instruction) necessary for individuals of given characteristics to achieve a specified level of competence in foreign language skills.

Limitations in the Interpretation of Results

There are several limitations which should be mentioned in regard to this study. First, the implications drawn from the data must be qualified by the size of the sample (54 students) that participated in all the final tests.

Lack of experience in using new materials and a new instructional approach has been previously mentioned in the discussion section. Orientation sessions for teachers were very brief. The field consultants held teacher orientation meetings prior to the beginning of instruction, but it was not possible to hold meetings between teachers and authors until several weeks after the course had begun. Teachers began instruction in most cases with insufficient knowledge or practice in the handling of equipment. None of the teachers had an opportunity to take the program prior to the students.

Field reports indicated that students also had problems in using materials. For example, a student would sometimes receive and use the wrong tape (e.g., use the tape for Unit 20 with Unit 19 in the programmed text). Occasionally a lesson might be taken out of sequence (e.g., Unit 11 before Unit 10). Tape breakage and malfunction of recorders, foot pedals and headsets were a source of student and/or teacher frustration, irritation, and discouragement.

Some schools did not have one tape-recorder for each student. Therefore, students sometimes worked on their program with two or three other students, simultaneously listening to one tape-recorder rather than listening individually as specified in the course instructions.

The length of some tests (especially the vocabulary tests) may have caused fatigue in students, resulting in depressed scores. There was also a general limitation inherent in this type of testing in that students responded to isolated utterances, outside of the situational context found both in normal conversation and, to a large degree, in the instruction.

TABLE 44

SUMMARY DATA FOR ALL SPA LISTENING COMPREHENSION TESTS

Test	Maximum Possible Score	Mean Score	Mean Score as Percentage	Standard Deviation	N
Midterm vocabulary..................	90	79.29	88.10	8.72	37
Midterm vocabulary.................. (as part of final test)	90	82.17	90.13	9.15	46
Midterm grammar.....................	31	22.78	73.48	4.79	37
Midterm grammar..................... (as part of final test)	31	24.18	78.00	4.98	46
Final vocabulary....................	214	186.82	87.30	25.99	46
Final grammar.......................	61	44.15	72.38	9.54	44
Final grammar transfer..............	38	26.38	69.42	6.38	47

TABLE 45

SUMMARY DATA FOR ALL SPA SPEAKING TESTS*

Test	Maximum Possible Score	Mean Score	Mean Score as Percentage	Standard Deviation	N
Vocabulary	209	114.65	54.85	45.41	47
Grammar (entire utterance)	49	9.57	19.53	8.39	49
Grammar (discrete elements)	49	13.20	26.93	8.57	49
Grammar transfer (entire utterance)	29	3.53	12.17	4.51	47
Grammar transfer (discrete elements)	29	6.78	23.37	5.83	47
Pronunciation (constructed response)	40	22.16	55.40	7.78	49
Pronunciation (mimicry)	40	29.61	74.02	6.04	49
Pronunciation (oral reading)	30	17.85	59.50	6.52	49

*All final tests.

TABLE 46

SUMMARY DATA FOR ALL SPA READING AND WRITING TESTS*

Test	Maximum Possible Score	Mean Score	Mean Score as Percentage	Standard Deviation	N
Reading					
Vocabulary	214	181.34	84.74	33.07	47
Grammar	56	39.00	69.64	9.57	48
Grammar transfer	33	23.04	69.82	6.12	46
Writing					
Vocabulary	209	125.27	59.93	49.03	47
Spelling	209	103.53	49.53	50.06	47
Grammar (entire response)	49	11.74	23.95	10.66	47
Grammar (discrete elements)	49	13.82	34.32	11.02	47
Grammar transfer (entire response)	29	4.68	16.13	5.80	47
Grammar transfer (discrete elements)	29	7.76	26.75	6.82	47

*All final tests.

TABLE 47

FREQUENCY DISTRIBUTION OF SCORES ON FINAL SPA LISTENING COMPREHENSION VOCABULARY TEST

Percentage of Items Correct	Percentage of Students
91 - 100	56.5
81 - 90	19.6
71 - 80	15.2
61 - 70	4.3
51 - 60	2.2
41 - 50	2.2
31 - 40	0
21 - 30	0
11 - 20	0
0 - 10	0
	100.0

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TABLE 48

FREQUENCY DISTRIBUTION OF SCORES ON FINAL SPA LISTENING COMPREHENSION GRAMMAR TEST

Percentage of Items Correct	Percentage of Students
91 - 100	6.8
81 - 90	29.6
71 - 80	20.4
61 - 70	15.9
51 - 60	15.9
41 - 50	6.8
31 - 40	4.6
21 - 30	0
11 - 20	0
0 - 10	0
	100.0

TABLE 49

FREQUENCY DISTRIBUTION OF SCORES ON FINAL SPA LISTENING COMPREHENSION GRAMMAR TRANSFER TEST

Percentage of Items Correct	Percentage of Students
91 - 100	6.4
81 - 90	25.5
71 - 80	23.4
61 - 70	10.6
51 - 60	21.3
41 - 50	10.6
31 - 40	2.1
21 - 30	0
11 - 20	0
0 - 10	0
	99.9

TABLE 50

FREQUENCY DISTRIBUTION OF SCORES ON MIDTERM SPA LISTENING COMPREHENSION VOCABULARY TEST

Percentage of Items Correct	Percentage of Students
91 - 100	54.0
81 - 90	29.7
71 - 80	8.1
61 - 70	5.4
51 - 60	2.7
41 - 50	0
31 - 40	0
21 - 30	0
11 - 20	0
0 - 10	0
	99.9

TABLE 51

FREQUENCY DISTRIBUTION OF SCORES ON MIDTERM SPA LISTENING COMPREHENSION VOCABULARY TEST (as part of final test)

Percentage of Items Correct	Percentage of Students
91 - 100	67.4
81 - 90	17.4
71 - 80	10.8
61 - 70	2.2
51 - 60	2.2
41 - 50	0
31 - 40	0
21 - 30	0
11 - 20	0
0 - 10	0
	100.0

TABLE 52

FREQUENCY DISTRIBUTION OF SCORES ON MIDTERM SPA LISTENING COMPREHENSION GRAMMAR TEST

Percentage of Items Correct	Percentage of Students
91 - 100	13.5
81 - 90	10.8
71 - 80	35.1
61 - 70	18.9
51 - 60	10.8
41 - 50	5.4
31 - 40	5.4
21 - 30	0
11 - 20	0
0 - 10	0
	99.9

TABLE 53

FREQUENCY DISTRIBUTION OF SCORES ON MIDTERM SPA LISTENING COMPREHENSION GRAMMAR TEST
(as part of final test)

Percentage of Items Correct	Percentage of Students
91 - 100	16.7
81 - 90	35.4
71 - 80	18.7
61 - 70	12.5
51 - 60	8.3
41 - 50	2.1
31 - 40	6.3
21 - 30	0
11 - 20	0
0 - 10	0
	100.0

TABLE 54

FREQUENCY DISTRIBUTION OF SCORES ON FINAL SPA READING VOCABULARY TEST

Percentage of Items Correct	Percentage of Students
91 - 100	48.9
81 - 90	23.4
71 - 80	12.8
61 - 70	8.5
51 - 60	0
41 - 50	4.3
31 - 40	2.1
21 - 30	0
11 - 20	0
0 - 10	0
	100.0

TABLE 55

FREQUENCY DISTRIBUTION OF SCORES ON FINAL SPA READING GRAMMAR TEST

Percentage of Items Correct	Percentage of Students
91 - 100	10.4
81 - 90	16.7
71 - 80	27.1
61 - 70	10.4
51 - 60	18.7
41 - 50	10.4
31 - 40	6.3
21 - 30	0
11 - 20	0
0 - 10	0
	100.0

TABLE 56

FREQUENCY DISTRIBUTION OF SCORES ON FINAL SPA READING GRAMMAR TRANSFER TEST

Percentage of Items Correct	Percentage of Students
91 - 100	6.5
81 - 90	26.1
71 - 80	17.4
61 - 70	15.2
51 - 60	17.4
41 - 50	6.5
31 - 40	8.7
21 - 30	2.2
11 - 20	0
0 - 10	0
	100.0

TABLE 57

FREQUENCY DISTRIBUTION OF SCORES ON FINAL SPA SPEAKING VOCABULARY TEST

Percentage of Items Correct	Percentage of Students
91 - 100	4.3
81 - 90	8.5
71 - 80	8.5
61 - 70	27.6
51 - 60	12.8
41 - 50	10.6
31 - 40	12.8
21 - 30	8.5
11 - 20	6.4
0 - 10	0
	100.0

TABLE 58

FREQUENCY DISTRIBUTION OF SCORES ON FINAL SPA SPEAKING GRAMMAR TEST (discrete element)

Percentage of Items Correct	Percentage of Students
91 - 100	0
81 - 90	4.1
71 - 80	0
61 - 70	0
51 - 60	0
41 - 50	10.2
31 - 40	28.6
21 - 30	24.4
11 - 20	24.5
0 - 10	10.2
	100.0

TABLE 59

FREQUENCY DISTRIBUTION OF SCORES ON FINAL SPA SPEAKING GRAMMAR TEST (entire utterance)

Percentage of Items Correct	Percentage of Students
91 - 100	0
81 - 90	2.0
71 - 80	2.0
61 - 70	0
51 - 60	0
41 - 50	4.1
31 - 40	10.2
21 - 30	20.4
11 - 20	30.6
0 - 10	30.6
	99.9

TABLE 60

FREQUENCY DISTRIBUTION OF SCORES ON FINAL SPA SPEAKING GRAMMAR TRANSFER TEST (discrete elements)

Percentage of Items Correct	Percentage of Students
91 - 100	0
81 - 90	0
71 - 80	4.2
61 - 70	0
51 - 60	8.5
41 - 50	12.8
31 - 40	0
21 - 30	21.3
11 - 20	27.7
0 - 10	25.5
	100.0

TABLE 61

FREQUENCY DISTRIBUTION OF SCORES ON FINAL SPA SPEAKING GRAMMAR TRANSFER TEST (entire utterance)

Percentage of Items Correct	Percentage of Students
91 - 100	0
81 - 90	0
71 - 80	2.1
61 - 70	0
51 - 60	2.1
41 - 50	0
31 - 40	6.4
21 - 30	8.5
11 - 20	29.8
0 - 10	51.1
	100.0

TABLE 62

FREQUENCY DISTRIBUTION OF SCORES ON FINAL SPA SPEAKING PRONUNCIATION TEST
(mimicry)

Percentage of Items Correct	Percentage of Students
91 - 100	0
81 - 90	36.7
71 - 80	34.7
61 - 70	14.3
51 - 60	6.1
41 - 50	4.1
31 - 40	0
21 - 30	2.0
11 - 20	2.0
0 - 10	0
	99.9

TABLE 63

FREQUENCY DISTRIBUTION OF SCORES ON FINAL SPA SPEAKING PRONUNCIATION TEST
(oral reading)

Percentage of Items Correct	Percentage of Students
91 - 100	0
81 - 90	9.2
71 - 80	34.7
61 - 70	14.3
51 - 60	10.2
41 - 50	8.2
31 - 40	12.2
21 - 30	6.1
11 - 20	4.1
0 - 10	2.0
	100.0

TABLE 64

FREQUENCY DISTRIBUTION OF SCORES ON FINAL SPA SPEAKING PRONUNCIATION TEST (constructed response)

Percentage of Items Correct	Percentage of Students
91 - 100	0
81 - 90	9.2
71 - 80	14.3
61 - 70	22.4
51 - 60	14.3
41 - 50	20.4
31 - 40	10.2
21 - 30	4.1
11 - 20	4.1
0 - 10	2.0
	100.0

TABLE 65

FREQUENCY DISTRIBUTION OF SCORES ON FINAL SPA WRITING VOCABULARY TEST

Percentage of Items Correct	Percentage of Students
91 - 100	8.5
81 - 90	12.8
71 - 80	21.3
61 - 70	4.3
51 - 60	19.1
41 - 50	14.9
31 - 40	6.4
21 - 30	6.4
11 - 20	4.2
0 - 10	2.1
	100.0

TABLE 66

FREQUENCY DISTRIBUTION OF SCORES ON FINAL SPA WRITING GRAMMAR TEST (discrete elements)

Percentage of Items Correct	Percentage of Students
91 - 100	2.1
81 - 90	2.1
71 - 80	2.1
61 - 70	2.1
51 - 60	6.4
41 - 50	12.8
31 - 40	17.0
21 - 30	8.5
11 - 20	23.4
0 - 10	23.4
	99.9

TABLE 67

FREQUENCY DISTRIBUTION OF SCORES ON FINAL SPA WRITING GRAMMAR TEST (entire response)

Percentage of Items Correct	Percentage of Students
91 - 100	2.1
81 - 90	2.1
71 - 80	2.1
61 - 70	0
51 - 60	4.3
41 - 50	8.5
31 - 40	10.6
21 - 30	17.0
11 - 20	23.4
0 - 10	29.8
	99.9

TABLE 68

FREQUENCY DISTRIBUTION OF SCORES ON FINAL SPA WRITING GRAMMAR TRANSFER TEST (discrete elements)

Percentage of Items Correct	Percentage of Students
91 - 100	2.1
81 - 90	2.1
71 - 80	2.1
61 - 70	4.3
51 - 60	8.5
41 - 50	8.5
31 - 40	4.3
21 - 30	17.0
11 - 20	21.3
0 - 10	29.8
	100.0

TABLE 69

FREQUENCY DISTRIBUTION OF SCORES ON FINAL SPA WRITING GRAMMAR TRANSFER TEST (entire response)

Percentage of Items Correct	Percentage of Students
91 - 100	0
81 - 90	2.1
71 - 80	2.1
61 - 70	2.1
51 - 60	0
41 - 50	6.4
31 - 40	4.3
21 - 30	12.8
11 - 20	21.3
0 - 10	28.9
	100.0

TABLE 70

FREQUENCY DISTRIBUTION OF SCORES ON FINAL SPA WRITING SPELLING TEST

Percentage of Items Correct	Percentage of Students
91 - 100	4.3
81 - 90	6.4
71 - 80	10.6
61 - 70	14.9
51 - 60	10.6
41 - 50	14.9
31 - 40	17.0
21 - 30	8.5
11 - 20	8.5
0 - 10	4.3
	100.0

TABLE 71

CORRELATION MATRIX SHOWING RELATIONSHIPS OF STUDENT CHARACTERISTICS TO LISTENING COMPREHENSION TEST PERFORMANCE IN SPA CLASSES

Test	Student Characteristics											
	IQ	Grade Point Average	Reading Grade Placement	Age	Sex*	Father's Occupation†	Mother's Occupation	Previous Training in Spanish	Spanish Spoken in Home	Preinstruction Confidence	Preinstruction Interest	Listening Pretest
Midterm vocabulary......	45	54	22	-08	-10	29	21	25	06	-14	-28	09
Midterm vocabulary...... (as part of final test)	32	31	52	-01	10	27	05	09	08	12	-28	07
Midterm grammar.........	16	58	19	-04	01	29	02	0	16	-03	-10	08
Midterm grammar......... (as part of final test)	38	22	56	-06	15	36	-02	11	03	22	-27	04
Final vocabulary........	38	30	54	-03	13	26	08	07	10	08	-32	09
Final grammar...........	36	33	51	-01	30	42	-17	-06	11	14	-28	08
Final grammar transfer..	36	38	45	-02	17	27	-06	17	17	-15	-31	13

* Correlations computed from code with 1 equal to male and 2 equal to female, so that positive correlations suggest slight female superiority.

† This is a socio-economic scale.

TABLE 72

CORRELATION MATRIX SHOWING RELATIONSHIPS OF STUDENT CHARACTERISTICS TO SPEAKING TEST PERFORMANCE IN SPA CLASSES

Test	Student Characteristics											
	IQ	Grade Point Average	Reading Grade Placement	Age	Sex*	Father's Occupation†	Mother's Occupation	Previous Training in Spanish	Spanish Spoken in Home	Preinstruction Confidence	Preinstruction Interest	Listening Pretest
Speaking grammar......... (entire utterance)	54	46	50	-20	11	38	-05	14	01	08	-39	15
Speaking grammar......... (discrete elements)	58	46	53	-24	07	40	05	16	02	08	-37	15
Speaking grammar......... transfer (entire utterance	51	35	41	-16	13	27	-05	-10	16	05	-18	15
Speaking grammar......... transfer (discrete elements	52	47	42	-17	09	31	03	12	10	04	-25	20
Speaking vocabulary......	46	43	50	-12	06	39	16	09	05	07	-35	12
Pronunciation............ (constructed response	29	21	35	03	02	15	16	12	14	-01	-35	36
Pronunciation............ (mimicry)	37	24	43	01	-03	32	11	21	17	0	-22	36
Pronunciation............ (oral reading)	48	37	43	-17	-04	18	14	04	15	02	-29	05

* Correlations computed from code with 1 equal to male and 2 equal to female, so that positive correlations suggest slight female superiority.

† This is a socio-economic scale.

TABLE 73

CORRELATION MATRIX SHOWING RELATIONSHIPS OF STUDENT CHARACTERISTICS TO READING AND WRITING TEST PERFORMANCE IN SPA CLASSES

Test	Student Characteristics											
	IQ	Grade Point Average	Reading Grade Placement	Age	Sex*	Father's Occupation†	Mother's Occupation	Previous Training in Spanish	Spanish Spoken in Home	Preinstruction Confidence	Preinstruction Interest	Listening Pretest
Reading vocabulary.......	41	32	56	-10	06	37	10	03	01	-02	-34	05
Reading grammar..........	48	42	62	-25	09	42	-09	06	-07	11	-30	-11
Reading grammar transfer................	45	36	64	-06	11	31	-04	07	-12	07	-32	03
Writing grammar.......... (entire utterance)	60	47	54	-19	06	32	-01	09	0	03	-31	12
Writing grammar.......... (discrete elements)	58	44	61	-14	06	30	02	10	-04	03	-33	16
Writing grammar transfer................ (entire utterance)	59	45	51	-30	09	30	-04	09	-14	09	-26	09
Writing grammar transfer................ (discrete elements)	58	44	46	-25	08	30	07	11	-12	04	-35	15
Writing vocabulary.......	51	50	64	-28	04	41	07	10	-20	01	-37	-08
Writing spelling.........	56	49	63	-30	06	40	05	07	-23	02	-38	-06

* Correlations computed from code with 1 equal to male and 2 equal to female, so that positive correlations suggest slight female superiority.

† This is a socio-economic scale.

TABLE 74

CORRELATION MATRIX SHOWING RELATIONSHIPS OF TEACHER CHARACTERISTICS TO LISTENING COMPREHENSION TEST PERFORMANCE IN SPA CLASSES

Test	Teacher Characteristics								
	Fluency in Spanish	Training in Spanish	Experience Teaching Spanish	Preinstruction Attitude Toward Spanish for Sixth Graders	Postinstruction Attitude Toward Spanish for Sixth Graders	Preinstruction Enjoyment in Teaching Spanish in Project	Postinstruction Enjoyment in Teaching Spanish in Project	Age	Sex*
Midterm vocabulary............	-11	-04	-08	36	43	43	26	51	-36
Midterm vocabulary............ (as part of final test)	05	-36	-39	37	46	38	39	43	-49
Midterm grammar...............	-05	-16	-23	39	38	38	35	32	-39
Midterm grammar............... (as part of final test)	08	-46	-41	38	47	39	41	44	-51
Final vocabulary..............	-01	-36	-33	33	42	35	34	44	-43
Final grammar.................	0	-44	-33	30	39	31	32	40	-40
Final grammar transfer........	-03	-19	-08	16	29	25	10	43	-23

* Correlations computed from code with 1 equal to male and 2 equal to female.

TABLE 75

CORRELATION MATRIX SHOWING RELATIONSHIPS OF TEACHER CHARACTERISTICS TO SPEAKING TEST PERFORMANCE IN SPA CLASSES

Test	Teacher Characteristics								
	Fluency in Spanish	Training in Spanish	Experience Teaching Spanish	Preinstruction Attitude Toward Spanish for Sixth Graders	Postinstruction Attitude Toward Spanish for Sixth Graders	Preinstruction Enjoyment in Teaching Spanish in Project	Postinstruction Enjoyment in Teaching Spanish in Project	Age	Sex*
Speaking grammar (entire utterance)	-04	-28	-21	32	37	34	29	43	-37
Speaking grammar (discrete elements)	-07	-34	-26	37	42	38	35	49	-43
Speaking grammar transfer (entire utterance)	-07	-37	-27	29	28	25	32	28	-33
Speaking grammar transfer (discrete elements)	-19	-39	-27	28	30	26	31	42	-34
Speaking vocabulary	-04	-37	-32	44	48	44	43	48	-50
Pronunciation (constructed response)	-34	-29	-19	02	08	02	08	40	-11
Pronunciation (mimicry)	-26	-12	-06	-10	-02	-06	-07	29	02
Pronunciation (oral reading)	-23	-13	0	17	23	23	10	46	-18

* Correlations computed from code with 1 equal to male and 2 equal to female.

TABLE 76

CORRELATION MATRIX SHOWING RELATIONSHIPS OF TEACHER CHARACTERISTICS TO READING AND WRITING TEST PERFORMANCE IN SPA CLASSES

Test	Teacher Characteristics								
	Fluency in Spanish	Training in Spanish	Experience Teaching Spanish	Preinstruction Attitude Toward Spanish for Sixth Graders	Postinstruction Attitude Toward Spanish for Sixth Graders	Preinstruction Enjoyment in Teaching Spanish in Project	Postinstruction Enjoyment in Teaching Spanish in Project	Age	Sex*
Reading vocabulary............	-03	-21	-16	28	36	32	23	41	-33
Reading grammar...............	14	-24	-23	43	54	49	35	48	-49
Reading grammar transfer......	-08	-21	-06	06	17	13	03	34	-13
Writing grammar.............. (entire utterance)	-16	-37	-25	29	32	28	29	40	-36
Writing grammar.............. (discrete elements)	-21	-39	-25	24	28	24	28	40	-31
Writing grammar transfer...... (entire utterance)	-12	-37	-28	40	42	39	38	44	-43
Writing grammar transfer...... (discrete elements)	-24	-42	-31	39	40	37	40	49	-43
Writing vocabulary............	07	-23	-24	40	49	44	35	44	-45
Writing spelling..............	04	-22	-21	40	48	45	34	43	-44

* Correlations computed from code with 1 equal to male and 2 equal to female.

TABLE 77

CORRELATION MATRIX SHOWING RELATIONSHIPS OF CLASSROOM AND DISTRICT CHARACTERISTICS TO LISTENING COMPREHENSION TEST PERFORMANCE IN SPA CLASSES

Test	Classroom Characteristics								District Characteristics		
	Size of Class	Supplementary Use of Visuals	Supplementary Use of Songs and Games	Supplementary Use of Films	Other Classroom Activity During Spanish	Teacher Supervision	Use of Program Outside Class	Use of Display Sessions	Size	Population Density	Type of State Support
Midterm vocabulary.......	43	22	22	42	-16	0	-38	07	-08	12	-36
Midterm vocabulary....... (as part of final test)	31	19	19	31	-08	0	-14	02	-45	-19	-33
Midterm grammar..........	37	09	09	28	-14	0	-16	11	-23	-03	-27
Midterm grammar.......... (as part of final test)	39	37	37	32	10	0	01	-17	-47	-34	-38
Final vocabulary.........	34	29	29	29	-02	0	-11	-11	-41	-19	-36
Final grammar............	36	41	41	26	12	0	06	-27	-29	-30	-34
Final grammar transfer...	30	45	45	31	13	0	-13	-28	-16	-15	-37

TABLE 78

CORRELATION MATRIX SHOWING RELATIONSHIPS OF CLASSROOM AND DISTRICT CHARACTERISTICS TO SPEAKING TEST PERFORMANCE IN SPA CLASSES

Test	Classroom Characteristics								District Characteristics		
	Size of Class	Supplementary Use of Visuals	Supplementary Use of Songs and Games	Supplementary Use of Films	Other Classroom Activity During Spanish	Teacher Supervision	Use of Program Outside Class	Use of Display Session	Size	Population Density	Type of State Support
Speaking grammar........ (entire utterance)	39	38	38	30	05	0	-09	-19	-27	-15	-31
Speaking grammar........ (discrete elements)	44	40	40	32	01	0	-12	-19	-33	-15	-36
Speaking grammar........ transfer (entire utterance)	32	28	28	15	05	0	09	-20	-27	-17	-20
Speaking grammar........ transfer (discrete elements)	37	36	36	19	-04	0	-05	-27	-30	-12	-38
Speaking vocabulary.....	14	36	36	36	-01	0	-09	-12	-43	-22	-41
Pronunciation........... (constructed response)	01	24	24	02	-21	0	-22	-27	-28	13	-32
Pronunciation........... (mimicry)	35	15	15	-01	-19	0	-26	-19	-12	22	-22
Pronunciation........... (oral reading)	46	42	42	25	-02	0	-23	-28	-10	05	-05

TABLE 79

CORRELATION MATRIX SHOWING RELATIONSHIPS OF CLASSROOM AND DISTRICT CHARACTERISTICS TO READING AND WRITING TEST PERFORMANCE IN SPA CLASSES

Test	Classroom Characteristics								District Characteristics		
	Size of Class	Supplementary Use of Visuals	Supplementary Use of Songs and Games	Supplementary Use of Films	Other Classroom Activity During Spanish	Teacher Supervision	Use of Program Outside Class	Use of Display Sessions	Size	Population Density	Type of State Support
Reading vocabulary.......	34	33	33	32	03	0	-13	-14	-38	-14	-34
Reading grammar..........	45	40	40	47	14	0	-13	-08	-32	-28	-37
Reading grammar transfer................	23	44	44	19	16	0	-04	-36	-26	-17	-34
Writing grammar.......... (entire utterance)	38	37	37	21	01	0	0	-27	-33	-14	-34
Writing grammar.......... (discrete elements)	36	37	37	16	-02	0	0	-30	-33	-13	-31
Writing grammar transfer............... (entire utterance)	46	36	36	29	-02	0	-04	-18	-33	-14	-32
Writing grammar transfer............... (discrete elements)	48	36	36	24	-10	0	-07	-23	-39	-09	-38
Writing vocabulary.......	40	28	28	40	01	0	-15	-01	-35	-16	-29
Writing spelling.........	42	30	30	40	03	0	-13	-04	-33	-15	-27

TABLE 80

MULTIPLE CORRELATION COEFFICIENTS ON SPA LISTENING COMPREHENSION AND READING TESTS

Test	Independent Variables				
	Five Student Variables[*]	Five Teacher Variables[†]	Eight Classroom and District Variables[‡]	Five Independent Variables[§]	Four Independent Variables Selected by Computer Program[‖]
Midterm vocabulary..........	64	59	70	61	38
Midterm grammar.............	62	46	55	42	37

[*] IQ, grade point average, reading grade placement, preinstruction confidence and interest. These were selected by the investigators.

[†] Fluency in Spanish, training in Spanish, experience teaching Spanish, preinstruction attitude toward Spanish for sixth graders, and preinstruction enjoyment in teaching Spanish in project. These were selected by the investigators.

[‡] Size of class, supplementary use of visuals, songs or games, films, teacher supervision, use of display sessions, size of district, and type of state support received by district. These were selected by the investigators.

[§] Student: IQ and preinstruction interest; teacher: fluency in Spanish and preinstruction attitude toward Spanish for sixth graders; classroom: use of display sessions. These were selected by the investigators.

[‖] Student: reading grade placement; teacher: training in Spanish; classroom: supplementary use of visuals; district: size. These were selected by computer program.

TABLE 80 continued

Test	Independent Variables				
	Five Student Variables[*]	Five Teacher Variables[†]	Eight Classroom and District Variables[‡]	Five Independent Variables[§]	Four Independent Variables Selected by Computer Program[‖]
Listening vocabulary........	57	59	81	55	73
Listening grammar...........	55	66	79	59	70
Listening grammar transfer..	56	58	73	51	63
Reading vocabulary..........	61	50	85	55	88
Reading grammar.............	65	63	87	67	82
Reading grammar transfer....	66	53	86	58	81

TABLE 81

MULTIPLE CORRELATION COEFFICIENTS ON SPA SPEAKING TESTS

Test	Independent Variables				
	Five Student Variables[*]	Five Teacher Variables[†]	Eight Classroom and District Variables[‡]	Five Independent Variables[§]	Four Independent Variables Selected by Computer Program[//]
Speaking vocabulary.........	60	61	81	67	78
Speaking grammar............ (entire utterance)	66	51	71	68	65

[*] IQ, grade point average, reading grade placement, preinstruction confidence and interest. These were selected by the investigators.

[†] Fluency in Spanish, training in Spanish, experience teaching Spanish, preinstruction attitude toward Spanish for sixth graders, and preinstruction enjoyment in teaching Spanish in project. These were selected by the investigators.

[‡] Size of class, supplementary use of visuals, songs or games, films, teacher supervision, use of display sessions, size of district, and type of state support received by district. These were selected by the investigators.

[§] Student: IQ and preinstruction interest; teacher: fluency in Spanish and preinstruction attitude toward Spanish for sixth graders; classroom: use of display sessions. These were selected by the investigators.

[//] Student: reading grade placement; teacher: training in Spanish; classroom: supplementary use of visuals; district: size. These were selected by computer program.

TABLE 81 continued

	Independent Variables				
	Five Student Variables*	Five Teacher Variables†	Eight Classroom and District Variables‡	Five Independent Variables§	Four Independent Variables Selected by Computer Program‖
Speaking grammar............ (discrete elements)	65	57	77	72	72
Speaking grammar transfer... (entire utterance)	52	47	70	60	56
Speaking grammar transfer... (discrete elements)	58	54	63	65	61
Pronunciation............... (constructed response)	44	54	54	53	49
Pronunciation............... (mimicry)	47	47	40	47	44
Pronunciation............... (oral reading)	54	51	49	59	57

TABLE 82

MULTIPLE CORRELATION COEFFICIENTS ON SPA WRITING TESTS

Test	Independent Variables				
	Five Student Variables[*]	Five Teacher Variables[†]	Eight Classroom and District Variables[≠]	Five Independent Variables[§]	Four Independent Variables Selected by Computer Program[//]
Writing vocabulary..........	71	57	90	67	80
Writing spelling............	71	56	90	71	78

[*] IQ, grade point average, reading grade placement, preinstruction confidence and interest. These were selected by the investigators.

[†] Fluency in Spanish, training in Spanish, experience teaching Spanish, preinstruction attitude toward Spanish for sixth graders, and preinstruction enjoyment in teaching Spanish in project. These were selected by the investigators.

[≠] Size of class, supplementary use of visuals, songs or games, films, teacher supervision, use of display sessions, size of district, and type of state support received by district. These were selected by the investigators.

[§] Student: IQ and preinstruction interest; teacher: fluency in Spanish and preinstruction attitude toward Spanish for sixth graders; classroom: use of display sessions. These were selected by the investigators.

[//] Student: reading grade placement; teacher: training in Spanish; classroom: supplementary use of visuals; district: size. These were selected by computer program.

TABLE 82 continued

Test	Independent Variables				
	Five Student Variables*	Five Teacher Variables†	Eight Classroom and District Variables‡	Five Independent Variables§	Four Independent Variables Selected by Computer Program‖
Writing grammar............. (entire utterance)	66	55	75	71	69
Writing grammar............. (discrete elements)	64	56	71	70	67
Writing grammar transfer.... (entire utterance)	64	59	80	72	67
Writing grammar transfer.... (discrete elements)	64	63	79	76	69

TABLE 83

INTERCORRELATION MATRIX OF ALL SPA LISTENING AND READING COMPREHENSION TESTS*

Test	Midterm Vocabulary	Midterm Grammar	Listening Vocabulary	Listening Grammar	Listening Grammar Transfer	Reading Vocabulary	Reading Grammar	Reading Grammar Transfer
Midterm vocabulary...........		76	82	65	72	81	61	64
Midterm grammar..............			69	68	63	67	68	56
Listening vocabulary.........				87	82	94	82	79
Listening grammar............					83	79	88	78
Listening grammar transfer...						80	80	80
Reading vocabulary...........							79	85
Reading grammar..............								85
Reading grammar transfer.....								

*To simplify presentation, the decimal point is not shown. Each coefficient is carried to the nearest hundredth.

TABLE 84

INTERCORRELATION MATRIX OF ALL SPA SPEAKING TESTS*

Test	Speaking Vocabulary	Speaking Grammar (entire utterance)	Speaking Grammar (discrete elements)	Speaking Grammar Transfer (entire utterance)	Speaking Grammar Transfer (discrete elements)	Pronunciation (constructed response)	Pronunciation (mimicry)	Pronunciation (oral reading)
Speaking vocabulary........		97	91	92	61	44	58	84
Speaking grammar........... (entire utterance)			92	93	64	48	60	90
Speaking grammar........... (discrete elements)				89	54	35	52	77
Speaking grammar transfer.. (entire utterance)					64	43	52	87
Speaking grammar transfer.. (discrete elements)						70	71	67
Pronunciation.............. (constructed response)							70	48
Pronunciation.............. (mimicry)								57
Pronunciation.............. (oral reading)								

*To simplify presentation, the decimal point is not shown. Each coefficient is carried to the nearest hundredth.

TABLE 85

INTERCORRELATION MATRIX OF ALL SPA WRITING TESTS*

Test	Writing Vocabulary	Writing Spelling	Writing Grammar (entire utterance)	Writing Grammar (discrete elements)	Writing Grammar Transfer (entire utterance)	Writing Grammar Transfer (discrete elements)
Writing vocabulary...........		99	95	94	80	84
Writing spelling.............			93	94	79	82
Writing grammar.............. (entire utterance)				96	78	82
Writing grammar.............. (discrete elements)					83	85
Writing grammar transfer..... (entire utterance)						98
Writing grammar transfer..... (discrete elements)						

*To simplify presentation, the decimal point is not shown. Each coefficient is carried to the nearest hundredth.

TABLE 86

CORRELATION MATRIX SHOWING RELATIONSHIPS OF SPA LISTENING AND READING COMPREHENSION TESTS TO SPA SPEAKING TESTS*

Test	Speaking Vocabulary	Speaking Grammar (entire utterance)	Speaking Grammar (discrete elements)	Speaking Grammar Transfer (entire utterance)	Speaking Grammar Transfer (discrete elements)	Pronunciation (constructed response)	Pronunciation (mimicry)	Pronunciation (oral reading)
Midterm vocabulary............	61	64	57	62	60	46	61	80
Midterm grammar...............	64	65	64	64	50	27	41	78
Listening vocabulary..........	65	71	58	68	64	47	55	89
Listening grammar.............	73	77	67	74	48	35	44	86
Listening grammar transfer....	70	72	62	70	54	42	53	79
Reading vocabulary............	61	67	52	62	62	48	57	86
Reading grammar...............	76	78	67	73	49	39	55	84
Reading grammar transfer......	69	72	61	68	58	41	60	79

*To simplify presentation, the decimal point is not shown. Each coefficient is carried to the nearest hundredth.

TABLE 87

CORRELATION MATRIX SHOWING RELATIONSHIPS OF SPA SPEAKING TESTS TO SPA WRITING TESTS*

Test	Writing Vocabulary	Writing Spelling	Writing Grammar (entire utterance)	Writing Grammar (discrete elements)	Writing Grammar Transfer (entire utterance)	Writing Grammar Transfer (discrete elements)
Speaking vocabulary..........	93	91	92	91	72	76
Speaking grammar............ (entire utterance)	93	93	92	92	77	78
Speaking grammar............ (discrete elements)	87	87	87	84	59	62
Speaking grammar transfer.... (entire utterance)	92	93	89	92	71	72
Speaking grammar transfer.... (discrete elements)	61	63	52	61	60	59
Pronunciation............... (constructed response)	44	47	36	40	44	41
Pronunciation............... (mimicry)	56	58	47	52	49	48
Pronunciation............... (oral reading)	85	87	81	87	89	87

*To simplify presentation, the decimal point is not shown. Each coefficient is carried to the nearest hundredth.

TABLE 88

CORRELATION MATRIX SHOWING RELATIONSHIPS OF SPA LISTENING AND READING COMPREHENSION TESTS TO SPA WRITING TESTS*

Test	Writing Vocabulary	Writing Spelling	Writing Grammar (entire utterance)	Writing Grammar (discrete elements)	Writing Grammar Transfer (entire utterance)	Writing Grammar Transfer (discrete elements)
Midterm vocabulary...........	62	65	53	61	67	65
Midterm grammar..............	59	58	55	59	58	57
Listening vocabulary.........	66	69	58	65	83	79
Listening grammar............	73	76	69	72	73	71
Listening grammar transfer...	70	70	64	68	75	73
Reading vocabulary...........	64	66	56	64	85	81
Reading grammar..............	81	81	76	76	83	82
Reading grammar transfer.....	76	77	69	72	80	78

*To simplify presentation, the decimal point is not shown. Each coefficient is carried to the nearest hundredth.

CHAPTER VII

RESULTS AND CONCLUSIONS FOR UAE

Summary of All Tests

Upon completion of the course, four final tests were given, one in listening comprehension and three in various aspects of speaking. Tables 89 and 90 summarize the results. At the end of the school year, 366 students took the final listening tests, and 56 students took the final speaking tests. This subsample of 56 students, selected randomly from among those taking the listening tests, did not differ appreciably from the nonselected students in terms of IQ, reading grade placement, previous training in Spanish, score on the Spanish pretest, and preinstructional interest and confidence.

Mean achievement scores, given as a percentage of the maximum possible score, ranged from a high of 59 percent in listening comprehension vocabulary to a low of 9 percent in speaking expression (English stimulus, scored on entire response). Whereas the overall achievement on all tests was low, the students did considerably better in listening comprehension than in speaking.

Listening Comprehension

The only listening test administered was the listening comprehension vocabulary test. The mean score was 59 percent of the maximum possible score. The dispersion of scores on this test was considerable. Table 91, containing a frequency distribution of scores, shows that 14 percent of the students achieved 81 percent or higher; 37 percent of the students obtained scores between 61 and 80 percent; and 50 percent of the students scored 60 percent or lower.

Performance on the midterm listening comprehension vocabulary test (lexical items learned during the first half of the course, through Lesson 45) was not significantly different from performance on the test when given at the end of instruction. Apparently, what was learned during the first half of the course was retained as new material was introduced, but learning of first-half material did not increase significantly during the second half of the course.

Frequency distributions of scores on the midterm vocabulary and grammar tests for both the midterm performance and the final performance are shown in Tables 92 and 93.

Speaking

Achievement on the speaking expression tests was extremely low. The four mean values were all under 19 percent of the maximum possible score, varying from 9 to 18 percent. The results were about the same whether an English or Spanish stimulus was used to elicit the student Spanish response. There was little variability in performance, with all scores falling at the low end of the scale, as can be seen in Tables 94 through 97. The speaking expression results were lower when scoring was on the entire utterance than when based on a minimal acceptable response.

In pronunciation, performance in mimicry (mean of 43 percent) was better than in constructed response (mean of 27 percent). The constructed response scores, however, were depressed because the students did not respond to some items, and, consequently, could receive no credit for pronunciation in these cases.

Frequency distributions of scores on the pronunciation tests are shown in Tables 98 and 99.

Interest and Confidence

There were no significant differences between mean pre- and postinstruction interest or mean pre- and postinstruction confidence. However, the correlations between the pre- and postinstruction scores were low (.37 for interest, and .37 for confidence).

Class Achievement

Tables 100, 101, and 102 present selected student, teacher, and classroom characteristics respectively in relation to a rank ordering of class mean scores on the final listening comprehension vocabulary test. No class results were analyzed for speaking tests because no more than a few students in any one class took these tests. Independent variables were chosen for this presentation on the basis of having some degree of variability among classes.

In Table 100, it can be seen that there was considerable variation among the class mean scores on the final listening comprehension vocabulary test. The class which scored the highest had a mean of 79 percent of the maximum possible score, compared to a mean of 27 percent for the class which scored the lowest.

Student characteristics presented in this table as class means, however, showed no relationship to the rank ordering of classes by achievement. For example, *it can be seen that there was relatively little dispersion among class mean* IQ scores. The highest was 119.6, the mean for the sixth-ranked class in achievement. The lowest, excluding one class which was obviously atypical (scoring more than 20 points below the next highest class), was 103.7, the mean of the eighth-ranked class. Ten of the classes clustered in the area of 109 to 112, and these were distributed more or less regularly throughout the rank ordering.

As can be seen in Table 101, none of the teacher characteristics showed any significant relationship to class ranking. However, in the case of language fluency, it can be seen that the teachers of the first five classes in the ranking had at least "some fluency" in Spanish. Most of the other teachers, eight out of eleven of them, had "little or no fluency." None of the other variables, training in Spanish, experience teaching Spanish, and the preinstruction attitude of the teacher toward Spanish for sixth graders, showed even a hint of a relationship to class ranking.

In Table 102 can be seen the relationship of classroom characteristics to class ranking. There were no clear-cut relationships between classroom characteristics and class ranking. However, some data were suggestive. For example, regarding the question as to whether or not the class usually held a warm-up session prior to the Spanish telecast, it can be seen that among the top seven classes in the ranking, six of them held a warm-up session, whereas among the remaining ten classes, only three held warm-up sessions regularly.

Another example is the frequency of student use of English in class, and this variable also showed very little relationship to achievement. The four classes in which the students used English "frequently" or "always," as opposed to "sometimes" or "rarely," fell among the lowest seven in the ranking, giving the merest suggestion that the frequent use of English by the students might interfere with the learning of Spanish.

Correlation and Regression Analyses

The correlations of student, teacher, classroom, and district characteristics with performances on the listening comprehension and speaking tests are presented in Tables 103-108. These data indicate that, for predictive purposes, none of the independent variables had a sufficiently strong and consistent relationship with the various test scores to merit much attention.

It was expected that correlations would be relatively low because of the lack of control over classroom environment in the study. It is of some interest that a few variables showed consistent, although small, relationships to test scores. For example, IQ, grade point average, and class size all had approximately the same degree of relationship to achievement. Such results are suggestive of relationships worthy of further study, particularly the interactions among variables having some influence upon achievement in the absence of rigorous environmental or statistical controls.

To determine the extent to which different combinations of independent variables were related to learning through the use of UAE materials, five multiple regression analyses were performed on the data. A computer program was employed which takes an intercorrelation matrix and computes the regression of various independent variables on a given dependent variable. Results of the five regression analyses are given in Table 109.

For the five regression analyses, all dependent variables were used and five sets of independent variables:[1] (1) five student characteristics; (2) five teacher variables; (3) nine classroom variables; (4) six variables selected by the computer program as a "good" subset in terms of the amount of variance in the dependent variable associated with the particular subset;[2] and (5) six variables from all categories.

These five regression analyses show that combinations of independent variables were more highly related to student learning than were any of the individual variables. There was a suggestion, as can be seen in Table 109, that the combined variables in classroom activity were more highly related to achievement than were other groupings. However, the differences among the five multiple regression groupings were slight, indicating that any one method of grouping is probably no more efficient in predicting student performance than is any other. Finally, the sizes of the mutiple regression coefficients indicate that the independent variables measured in this study accounted for a relatively small percentage of the learning associated with the use of UAE materials.

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[1] In each case, those variables were selected which the investigators felt would potentially relate most strongly to achievement, except when the selection was made by computer.

[2] A "good" subset here was one of several, having high multiple regression coefficients, all of which were statistically equivalent. For a discussion of the criteria and methods used by the computer program to select a "good" subset, see L. Villone, R. McCornack, and K. Wood, Multiple Regression with Subsetting of Variables, System Development Corporation Document FN-6622/0/0, June 1962.

Intercorrelations Among All Tests

Table 110 presents the intercorrelations among all UAE tests. The correlations between the listening comprehension vocabulary test and the speaking expression tests, as well as the correlations among the speaking expression tests, were generally high, ranging from .75 to .99, with 10 of 11 values above .80. The correlations between the pronunciation tests and all other tests were generally low, varying from .16 to .56.

Discussion

The low achievement in listening comprehension and speaking and the wide variability in listening comprehension performance presents serious problems of articulation and raises questions about program improvement and development.

The results of the study indicate that very few students would be prepared for the next sequence of instruction. Even if the second year's course contained considerable review of the first year's material, individual differences make it unlikely that overall performance would improve significantly. It is more likely that variability in performance would increase from year to year, presenting increasingly difficult problems of articulation, especially as new skills such as reading and writing were introduced. Many students would fall further and further behind in succeeding years. This would be particularly important in the case of TV, where the program sequence is fixed, and the classroom teacher is limited in what she can do to adapt instruction to class needs.

The results suggest that modifications to the materials might be needed to improve student performance. Appendix C contains student performance data (percentage of students responding correctly) for each specific vocabulary element and expression. Those vocabulary elements and expressions which very few or no students learned would require special attention. However, modification in the amount and type of practice for specific vocabulary elements and expressions might not be sufficient. Given the lock-step system and a limited amount of time, it may be necessary to reduce the total number of linguistic objectives (i.e., set up more feasible goals and provide more practice and greater variety, with fewer linguistic elements) if it is seriously desired to reduce the wide variability in end-of-course performance.

Since the UAE television course achieved its listening comprehension vocabulary objectives to a higher degree than its speaking objectives, the question arises as to the extent to which procedures could be devised to improve the effectiveness of the speaking instruction. Certain inherent limitations in the medium would have to be considered (e.g., essentially one way communication, with no opportunity for observing and correcting student oral responses). It may be that initially TV should concentrate more on listening comprehension, with speaking practice held to a minimum. This might be especially the case where the classroom teacher has little or no command of Spanish. In any case, it raises the general question as to whether a certain kind and level of competence in listening comprehension is an important prerequisite for optimal progress in acquiring skill in speaking.

A possible explanation of the results of this study may be that the traditional method of preparing a whole semester's course (or a year's course) before trying it out on students, and of basing revisions on subjective feedback from teachers, is inadequate. If we wish to develop materials and procedures that are highly effective with a given population of students (i.e., that enable most students to achieve a specified minimal level of performance needed to proceed to the next sequence of instruction), it would appear necessary to try out materials unit by unit on the intended students, basing revisions on a detailed objective evaluation of student performance. How to accomplish this in the case of TV, where considerable expense is involved in video-taping or filming lessons, is a problem. Pretesting of each unit might be accomplished through the TV teacher working with a class directly, and might include warm-up and follow-up activities by the classroom teacher.

The following basic question, however, must be answered before valid conclusions can be drawn concerning the use of the UAE materials with sixth-grade students: To what extent are the results of this study a function of problems connected with initial implementation of new materials and a new instructional approach (i.e., to what degree were the materials misused due to lack of teacher experience)? In other words, are the results representative of what might be expected after administrators and teachers have had experience in using the materials?

There is considerable evidence that the method of using materials is important to their effectiveness. In this study there was considerable variation in how UAE was conducted in the classroom. Table 102 shows that warm-up and follow-up activities prescribed by the course developer were not conducted in seven of the seventeen participating classes. In three other classes, warm-up or follow-up activities took place, but not both. In only seven classes were both warm-up and follow-up sessions regularly used.

There was also considerable variability among the classes in student response to drill conducted by the television instructor, in whether or not the classroom teacher responded along with the students, and, during review sessions on days when there was no telecast, in whether or not the classroom teacher modeled Spanish utterances. An important question to be answered concerns the extent to which the classroom teacher can be trained and motivated to perform effectively those functions recommended by the course that should take place before, during, and after each telecast. It would seem highly desirable to repeat this study in school districts that have various amounts of experience in using the course before drawing definite conclusions.

Limitations in the Interpretation of Results

In assessing the results of the study, a number of limitations must be considered. The implications drawn from the results must be qualified by the size of the sample participating in the final testing (i.e., 366 in listening comprehension and only 56 in speaking). Lack of experience in using new materials and a new instructional approach is another consideration. Orientation sessions for teachers were very brief. The field consultants held teacher orientation meetings prior to the beginning of instruction, but it was impossible to hold meetings between teachers and authors until several weeks after instruction had begun. Teachers began instruction in most cases with insufficient information concerning course objectives, materials, procedures, and the handling of equipment.

Materials for use with the TV program were not received by some classes until well after the start of the semester. Until the materials arrived, teachers conducting these classes had to improvise warm-up and follow-up activities. TV reception in some schools was not of desired quality. Reports from consultants indicated that a few classes missed telecasts because of field trips.

The use of a tape recording for presentation of the Spanish stimuli on the listening comprehension test may have caused a problem for the students who were used to receiving auditory stimuli from the TV teacher. Although recordings were used during review sessions on days when there was no telecast, there may be a need for more systematic weaning from an "audio-visual" presentation to an "audio-only" presentation for students at this grade level. Furthermore, recording student oral responses during individual speaking tests may have caused apprehension and inhibition on the part of some students. Another possible limitation was that the UAE materials were originally designed for fifth graders, but were used in this study with sixth graders.

Still another consideration is that the length of the listening comprehension vocabulary test may have caused fatigue in students, resulting in depressed scores. There was also a general limitation inherent in this type of testing in that students were responding to isolated utterances outside of the situational context found in both normal conversation and, to a considerable degree, in the instruction.

TABLE 89

SUMMARY DATA FOR ALL UAE LISTENING COMPREHENSION TESTS

Test	Maximum Possible Score	Mean Score	Mean Score as Percentage	Standard Deviation	N
Midterm vocabulary..................	227	140.44	61.86	35.39	389
Midterm vocabulary.................. (as part of final test)	227	150.15	66.14	39.13	366
Final vocabulary....................	384	227.46	59.23	67.54	366

TABLE 90

SUMMARY DATA FOR ALL UAE SPEAKING TESTS*

Test	Maximum Possible Score	Mean Score	Mean Score as Percentage	Standard Deviation	N
Expression (English stimulus)					
Entire response....................	45	3.83	8.51	4.28	56
Minimal response..................	45	4.71	10.46	5.18	56
Expression (Spanish stimulus)					
Entire response....................	27	3.73	13.81	3.49	56
Minimal response..................	27	4.92	18.22	4.32	56
Pronunciation					
Constructed response...............	30	8.08	26.93	5.13	56
Mimicry...........................	30	12.83	42.76	4.84	56

*All final tests.

TABLE 91

FREQUENCY DISTRIBUTION OF SCORES ON FINAL UAE LISTENING COMPREHENSION VOCABULARY TEST

Percentage of Items Correct	Percentage of Students
91 - 100	1.6
81 - 90	12.0
71 - 80	13.4
61 - 70	23.2
51 - 60	20.8
41 - 50	14.2
31 - 40	9.3
21 - 30	3.6
11 - 20	.8
0 - 10	1.1
	100.0

TABLE 92

FREQUENCY DISTRIBUTION OF SCORES ON MIDTERM UAE LISTENING COMPREHENSION VOCABULARY TEST

Percentage of Items Correct	Percentage of Students
91 - 100	1.5
81 - 90	12.6
71 - 80	18.0
61 - 70	23.1
51 - 60	23.9
41 - 50	12.6
31 - 40	5.9
21 - 30	1.5
11 - 20	.8
0 - 10	0
	99.9

TABLE 93

FREQUENCY DISTRIBUTION OF SCORES ON MIDTERM UAE LISTENING COMPREHENSION VOCABULARY TEST (as part of final test)

Percentage of Items Correct	Percentage of Students
91 - 100	4.6
81 - 90	19.4
71 - 80	21.9
61 - 70	22.4
51 - 60	13.4
41 - 50	10.1
31 - 40	5.7
21 - 30	1.1
11 - 20	.8
0 - 10	.6
	100.0

TABLE 94

FREQUENCY DISTRIBUTION OF SCORES ON FINAL UAE SPEAKING EXPRESSION TEST
(English stimulus, minimal response)

Percentage of Items Correct	Percentage of Students
91 - 100	0
81 - 90	0
71 - 80	0
61 - 70	0
51 - 60	0
41 - 50	0
31 - 40	8.6
21 - 30	12.1
11 - 20	19.0
0 - 10	60.3
	100.0

TABLE 95

FREQUENCY DISTRIBUTION OF SCORES ON FINAL UAE SPEAKING EXPRESSION TEST
(English stimulus, entire response)

Percentage of Items Correct	Percentage of Students
91 - 100	0
81 - 90	0
71 - 80	0
61 - 70	0
51 - 60	0
41 - 50	0
31 - 40	1.7
21 - 30	10.3
11 - 20	24.1
0 - 10	63.8
	99.9

TABLE 96

FREQUENCY DISTRIBUTION OF SCORES ON FINAL UAE SPEAKING EXPRESSION TEST
(Spanish stimulus, minimal response)

Percentage of Items Correct	Percentage of Students
91 - 100	0
81 - 90	0
71 - 80	0
61 - 70	0
51 - 60	5.2
41 - 50	8.6
31 - 40	19.0
21 - 30	10.3
11 - 20	17.2
0 - 10	39.7
	100.0

TABLE 97

FREQUENCY DISTRIBUTION OF SCORES ON FINAL UAE SPEAKING EXPRESSION TEST
(Spanish stimulus, entire response)

Percentage of Items Correct	Percentage of Students
91 - 100	0
81 - 90	0
71 - 80	0
61 - 70	0
51 - 60	0
41 - 50	3.4
31 - 40	17.2
21 - 30	13.8
11 - 20	17.2
0 - 10	48.3
	99.9

TABLE 98

FREQUENCY DISTRIBUTION OF SCORES ON FINAL UAE SPEAKING PRONUNCIATION TEST (mimicry)

Percentage of Items Correct	Percentage of Students
91 - 100	0
81 - 90	0
71 - 80	5.2
61 - 70	3.4
51 - 60	24.1
41 - 50	22.4
31 - 40	19.0
21 - 30	12.1
11 - 20	12.1
0 - 10	1.7
	100.0

TABLE 99

FREQUENCY DISTRIBUTION OF SCORES ON FINAL UAE SPEAKING PRONUNCIATION TEST (constructed response)

Percentage of Items Correct	Percentage of Students
91 - 100	0
81 - 90	0
71 - 80	1.7
61 - 70	0
51 - 60	5.2
41 - 50	15.5
31 - 40	20.7
21 - 30	13.8
11 - 20	24.1
0 - 10	19.0
	100.0

TABLE 100

STUDENT CHARACTERISTICS IN UAE CLASSES, SHOWING THE DISTRIBUTION OF MEAN CHARACTERISTICS ACCORDING TO A RANKING OF CLASSES BY MEAN SCORE IN FINAL LISTENING COMPREHENSION VOCABULARY*

Class Rank	Mean Score As Percentage of Maximum Possible Score in Listening Vocabulary	Student Characteristics	
		Mean IQ	Reading Grade Placement
1	78.91	110.86	6.65
2	75.06	112.92	6.06
3	72.05	112.72	6.41
4	70.36	110.90	6.15
5	68.45	110.96	6.10
6	67.30	119.60	6.66
7	62.40	107.77	5.58
8	61.04	103.66	5.75
9	60.03	111.65	6.12
10	59.70	109.75	6.52
11	57.70	109.57	6.18
12	54.47	104.44	6.33
13	54.38	115.06	6.63
14	53.21	110.69	--
15	47.05	105.70	5.70
16	41.60	85.62	2.33
17	26.92	110.67	6.12

*No class results were analyzed for speaking tests because no more than a few students in any one class took these tests. Independent variables were chosen for this presentation on the basis of having some degree of variability among classes.

TABLE 101

TEACHER CHARACTERISTICS IN UAE CLASSES, SHOWING THE DISTRIBUTION OF CHARACTERISTICS ACCORDING TO A RANKING OF CLASSES BY MEAN SCORE IN FINAL LISTENING COMPREHENSION VOCABULARY*

Class Rank	Mean Score as Percentage of Maximum Possible Score in Listening Vocabulary	Teacher Characteristics			
		Experience Teaching Spanish†	Fluency in Spanish‡	Training in Spanish§	Preinstruction Attitude Toward Spanish for Sixth Graders//
1	78.91	4	2	3	2
2	75.06	4	2	3	1
3	72.05	2	2	4	1
4	70.36	2	3	1	1

*No class results were analyzed for speaking tests because no more than a few students in any one class took these tests. Independent variables were chosen for this presentation on the basis of having some degree of variability among classes.

†1 Five years or more
2 Less than five years
3 Taught another language
4 No experience teaching foreign language

‡1 Little or no fluency
2 Some fluency
3 Native or near-native fluency

§1 Native language
2 Studied in Spanish-speaking country
3 At least one year
4 Less than one year
5 Training in another language
6 No foreign language training

//1 Extremely worthwhile
2 Fairly worthwhile
3 Can't do harm
4 Shouldn't be undertaken

TABLE 101 continued

Class Rank	Mean Score as Percentage of Maximum Possible Score in Listening Vocabulary	Teacher Characteristics			
		Experience Teaching Spanish[†]	Fluency in Spanish[‡]	Training in Spanish[§]	Preinstruction Attitude Toward Spanish for Sixth Graders[//]
5	68.45	2	2	3	2
6	67.30	-	-	-	-
7	62.40	4	1	5	1
8	61.04	4	1	5	1
9	60.03	4	1	6	3
10	59.70	4	1	4	2
11	57.70	2	2	5	1
12	54.47	4	1	3	2
13	54.38	4	1	5	1
14	53.21	3	2	3	1
15	47.05	1	2	3	2
16	41.60	4	1	3	1
17	26.92	4	1	5	1

TABLE 102

CLASSROOM CHARACTERISTICS IN UAE CLASSES, SHOWING THE DISTRIBUTION OF CHARACTERISTICS ACCORDING TO A RANKING OF CLASSES BY MEAN SCORE IN FINAL LISTENING COMPREHENSION VOCABULARY*

Class Rank	Mean Score as Percentage of Maximum Possible Score in Listening Vocabulary	Classroom Characteristics						
		Use of Warm-up Period	Use of Follow-up Period	Class Response to TV Instruction	Classroom Teacher Response to TV Instruction	Teacher Serves as Speaking Model (Non-TV day)	Teacher Use of English in Class (Non-TV day)	Student Use of English in Class (Non-TV day)
1	78.91	Yes	Yes	Most	Yes	Yes	Frequently	Sometimes
2	75.06	No	Yes	Half	Yes	Yes	Frequently	Sometimes
3	72.05	Yes	Yes	Most	-	-	-	-
4	70.36	Yes	Yes	Most	Yes	Yes	Rarely	Rarely
5	68.45	Yes	Yes	Most	Yes	Yes	Frequently	Sometimes
6	67.30	Yes	No	Half	Yes	-	-	-
7	62.40	Yes	Yes	Most	Yes	No	Always	Rarely
8	61.04	No	No	Half	Yes	-	-	-
9	60.03	No	No	Most	Yes	Yes	Always	Sometimes
10	59.70	No	No	Half	Yes	Yes	Always	Always
11	57.70	Yes	Yes	Most	Yes	Yes	Always	Sometimes
12	54.47	No	No	Half	No	No	Always	Frequently
13	54.38	No	No	Half	Yes	-	-	-
14	53.21	Yes	Yes	Most	Yes	No	Frequently	Sometimes
15	47.05	No	No	Few	No	No	Always	Frequently
16	41.60	Yes	No	Half	Yes	No	Always	Sometimes
17	26.92	No	No	Few	No	No	Always	Frequently

*No class results were analyzed for speaking tests because no more than a few students in any one class took these tests. Independent variables were chosen for this presentation on the basis of having some degree of variability among classes.

TABLE 103

CORRELATION MATRIX SHOWING RELATIONSHIPS OF STUDENT CHARACTERISTICS TO LISTENING COMPREHENSION TEST PERFORMANCE IN UAE CLASSES

Test	Student Characteristics											
	IQ	Grade Point Average	Reading Grade Placement	Age	Sex*	Father's Occupation†	Mother's Occupation	Previous Training in Spanish	Spanish Spoken in Home	Preinstruction Confidence	Preinstruction Interest	Listening Pretest
Midterm vocabulary.......	42	39	44	-11	23	33	13	03	06	20	06	20
Midterm vocabulary....... (as part of final)	35	35	45	-13	27	25	10	02	05	18	10	18
Final vocabulary.........	34	35	43	-14	27	25	10	05	05	17	09	22

* Correlations computed from code with 1 equal to male and 2 equal to female, so that positive correlations suggest slight female superiority.

† This is a socio-economic scale.

TABLE 104

CORRELATION MATRIX SHOWING RELATIONSHIPS OF STUDENT CHARACTERISTICS TO SPEAKING TEST PERFORMANCE IN UAE CLASSES

Test	Student Characteristics											
	IQ	Grade Point Average	Reading Grade Placement	Age	Sex*	Father's Occupation†	Mother's Occupation	Previous Training in Spanish	Spanish Spoken in Home	Preinstruction Confidence	Preinstruction Interest	Listening Pretest
Pronunciation												
Constructed response........	39	29	12	-38	26	12	-08	0	09	33	21	-15
Mimicry.....................	39	16	05	-13	03	14	01	0	-09	44	29	-24
Expression (English stimulus)												
Entire utterance............	53	49	42	-25	19	11	-01	-05	-06	55	30	-13
Minimal acceptable response.	53	50	40	-24	21	07	0	-13	-08	51	30	-12
Expression (Spanish stimulus)												
Entire utterance............	63	53	38	-28	28	14	-10	-14	08	49	18	-10
Minimal acceptable response.	63	56	40	-29	29	16	-09	-07	03	52	19	-05

* Correlations computed from code with 1 equal to male and 2 equal to female, so that positive correlations suggest slight female superiority.

† This is a socio-economic scale.

TABLE 105

CORRELATION MATRIX SHOWING RELATIONSHIPS OF TEACHER CHARACTERISTICS TO LISTENING COMPREHENSION TEST PERFORMANCE IN UAE CLASSES

Test	Teacher Characteristics								
	Fluency in Spanish	Training in Spanish	Experience Teaching Spanish	Preinstruction Attitude Toward Spanish for Sixth Graders	Postinstruction Attitude Toward Spanish for Sixth Graders	Preinstruction Enjoyment in Teaching Spanish in Project	Postinstruction Enjoyment in Teaching Spanish in Project	Age	Sex*
Midterm vocabulary............	41	17	09	-12	30	-02	31	41	29
Midterm vocabulary............ (as part of final)	37	17	11	-14	34	-09	31	45	33
Final vocabulary..............	39	21	07	-12	29	-08	33	46	32

* Correlations computed from code with 1 equal to male and 2 equal to female.

TABLE 106

CORRELATION MATRIX SHOWING RELATIONSHIPS OF TEACHER CHARACTERISTICS TO SPEAKING TEST PERFORMANCE IN UAE CLASSES

Test	Teacher Characteristics								
	Fluency in Spanish	Training in Spanish	Experience Teaching Spanish	Preinstruction Attitude Toward Spanish for Sixth Graders	Postinstruction Attitude Toward Spanish for Sixth Graders	Preinstruction Enjoyment in Teaching Spanish in Project	Postinstruction Enjoyment in Teaching Spanish in Project	Age	Sex*
Pronunciation									
Constructed response........	27	11	-06	18	25	15	35	02	15
Mimicry....................	05	-13	-12	09	12	07	14	03	21
Expression (English stimulus)									
Entire utterance............	50	13	16	04	38	03	38	28	31
Minimal acceptable response.	49	11	16	03	36	02	39	31	34
Expression (Spanish stimulus)									
Entire utterance............	45	11	13	07	36	01	33	34	22
Minimal acceptable response.	44	15	07	06	33	02	36	33	25

* Correlations computed from code with 1 equal to male and 2 equal to female.

TABLE 107

CORRELATION MATRIX SHOWING RELATIONSHIPS OF CLASSROOM AND DISTRICT CHARACTERISTICS TO LISTENING COMPREHENSION TEST PERFORMANCE IN UAE CLASSES

Test	Classroom Characteristics								District Characteristics		
	Use of Warm-up Period	Use of ollow-up Period	Class's Response to TV Instruction	Classroom Teacher's Response to TV Instruction	Teacher Use of English in Class	Student Use of English in Class	Teacher Serves as Speaking Model	Size of Class	Size	Population Density	Type of State Support
Midterm vocabulary.......	29	42	49	43	-26	-45	-25	59	-11	02	-08
Midterm vocabulary....... (as part of final test)	28	42	51	48	-18	-39	-28	56	-10	03	-11
Final vocabulary.........	28	46	50	46	-15	-43	-29	55	-11	-02	-11

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TABLE 108

CORRELATION MATRIX SHOWING RELATIONSHIPS OF CLASSROOM AND DISTRICT CHARACTERISTICS TO SPEAKING TEST PERFORMANCE IN UAE CLASSES

Test	Classroom Characteristics								District Characteristics		
	Use of Warm-up Period	Use of Follow-up Period	Class's Response to TV Instruction	Classroom Teacher's Response to TV Instruction	Teacher Use of English in Class	Student Use of English in Class	Teacher Serves as Speaking Model	Size of Class	Size	Population Density	Type of State Support
Pronunciation											
Constructed response........	23	26	27	44	-32	-38	35	-49	-29	03	-30
Mimicry......................	02	09	19	43	-17	-30	36	-45	-33	0	-36
Expression (English stimulus)											
Entire utterance............	31	47	42	43	-55	-52	56	-47	-37	-08	-27
Minimal acceptable response.	32	47	41	44	-50	-50	57	-45	-38	-06	-26
Expression (Spanish stimulus)											
Entire utterance...........	28	46	41	37	-53	-51	53	-41	-39	-11	-23
Minimal acceptable response.	25	44	40	39	-58	-49	54	-45	-37	-09	-24

TABLE 109

MULTIPLE CORRELATION COEFFICIENTS ON ALL UAE TESTS

Test	Independent Variables				
	Five Student Variables[*]	Five Teacher Variables[†]	Nine Classroom and District Variables[‡]	Six Independent Variables[§]	Six Independent Variables Selected by Computer Program[//]
Listening Comprehension					
Midterm vocabulary........	49	55	74	68	70
Listening vocabulary......	46	53	72	65	69

[*] IQ, grade point average, reading grade placement, preinstruction confidence and interest. These were selected by the investigators.

[†] Fluency in Spanish, training in Spanish, experience teaching Spanish, preinstruction attitude toward Spanish for sixth graders, preinstruction enjoyment in teaching Spanish in project. These were selected by the investigators.

[‡] Size of class, use of warm-up to telecast, use of follow-up to telecast, teacher's use of English in class, students' use of English in class, teacher serving as speaking model, size of district, population density of district, type of state support received by district. These were selected by the investigators.

[§] Student: IQ and preinstruction interest; teacher: fluency in Spanish and preinstruction attitude toward Spanish for sixth graders; classroom: use of warm-up to telecast and classroom teacher's response to TV instruction. These were selected by the investigators.

[//] Student: reading grade placement; teacher: preinstruction attitude toward Spanish for sixth graders and preinstruction enjoyment in teaching Spanish in project; classroom: teacher's use of English in class, student's use of English in class, and teacher serving as speaking model. These were selected by computer program.

TABLE 109 continued

Test	Independent Variables				
	Five Student Variables*	Five Teacher Variables†	Nine Classroom and District Variables‡	Six Independent Variables§	Six Independent Variables Selected by Computer Program‖
Speaking					
Expression, English stimulus					
Entire utterance...........	75	62	77	79	88
Minimal acceptable response	73	62	88	79	84
Expression, Spanish stimulus					
Entire utterance...........	79	58	74	79	81
Minimal acceptable response	80	60	76	79	81
Pronunciation					
Constructed response.......	56	46	70	61	61
Mimicry....................	64	34	77	63	50

TABLE 110

INTERCORRELATION MATRIX OF ALL UAE TESTS*

Test	Midterm Vocabulary	Final Vocabulary	Pronunciation (constructed response)	Pronunciation (mimicry)	Speaking Expression English Stimulus (entire utterance)	Speaking Expression English Stimulus (discrete elements)	Speaking Expression Spanish Stimulus (entire utterance)	Speaking Expression Spanish Stimulus (discrete elements)
Listening Comprehension								
Midterm vocabulary		86	40	33	75	74	73	76
Final vocabulary			31	16	82	81	75	80
Speaking								
Pronunciation								
Constructed response				66	41	41	56	55
Mimicry					39	40	48	45
Expression, English stimulus								
Entire utterance						99	85	87
Discrete elements							84	86
Expression, Spanish stimulus								
Entire utterance								97
Discrete elements								

*To simplify presentation, the decimal point is not shown. Each coefficient is carried to the nearest hundredth.

CHAPTER VIII

COST FACTORS

Equipment and Materials

In order to gather data on the cost of implementing each of the three instructional programs in terms of both time and money, a questionnaire was sent to the superintendents of all participating districts. A copy of this questionnaire can be found in Appendix D.

The cost of implementing the Spanish courses varied considerably from district to district and from course to course. If we take the cost of installing a given course per class for each district and then average the cost per classroom across districts, we may obtain an index of the cost per classroom for each course.

It should be pointed out that this is a weighted average, since the average cost per class was computed for each district as a preliminary step and then the average cost across districts. This procedure resulted in those districts with only one class in a given method having equal weight with a district conducting two or more classes. Therefore, the per class average gives less weight to classes which are only one of two or more operating within a district.

It may be assumed that the cost per class decreases to some extent as the number of classes in operation increases. Equipment, such as tape recorders, can be used in more than one class, and many types of materials can be used more than once. The weighting swings the average in the direction of the one-class situation, so that it would tend to be increased slightly over what it would be if unweighted.

The purpose of the weighting was to reflect the fact that the one-class situation tended to be the more prevalent one and, therefore, it could be argued, was more typical. It could be argued with equal validity, however, that districts seeking to implement a course of instruction in something more than a pilot program will in most cases have more than one class, and so the multiple class situation might be thought to be more typical.

If we had a good distribution of districts in terms of the number of classes using a given program, we could control for the number of classes involved and report the cost per class based on the number of classes implemented. However, the extremely skewed distribution of districts did not allow this. The modal number of classes in a district was one, and the majority of districts were restricted to no more than two classes in a method.

MLA. Table 111 shows the average expenditure for equipment and materials per class in each course of instruction. In examining the cost of equipment and materials for districts which installed MLA classes, it can be seen in Table 111 that there was a range from $8 to $526 per class, with a mean expenditure of about $160.

Obviously, the cost must depend upon three major factors: 1) how much equipment and materials the district has on hand: 2) how much the district is willing and able to spend for new materials and equipment; and 3) how many students they wish to include in the program. These factors are not independent of one another.

TABLE 111

AVERAGE EXPENDITURE FOR EQUIPMENT AND MATERIALS PER CLASS BY COURSE

Approach	Average Expense per Class	Range in Expense per Class
MLA.............	$ 160	$ 8-526
UAE.............	375	38-683
SPA.............	4,343	1,763-11,204

The expense depends upon the importance given to a foreign language program by a particular district more than anything else. The factors influencing the importance given to a foreign language program were not determined.

The district which spent $8 had only one class and purchased only a teacher's guide to Beginning Spanish in Grade Three and a phonograph record for use in that class. This represents the minimum possible expenditure for MLA materials. The district which spent $526 per class had one class and purchased, in addition to teacher's manuals and records, a record player and a tape recorder.

UAE. It can also be seen in Table 111 that the cost of equipment and materials for UAE classes varied from $38 to $683, with a mean expense of $375. The district that spent only $38 on equipment and materials already had the television equipment installed and needed only to purchase teacher's guides, records, and pupil booklets. However, one district spent $4,500 for television sets. This district also purchased TV carts, antennae, cables and conduit, boosters and spent close to $2,300 for a contract with an educational TV station in order to be able to receive the Spanish telecast. The cost per class, however, was under $300. This district had a total of 18 classes in operation.

SPA. The average expenditure for equipment and materials per Spanish A class varied from $1,763 to $11,204, with a mean of $4,343, as shown in Table 111.

Basic to the SPA program were the lesson booklets, offered at the price of $29.25 per set, and the tapes, offered at $113.40 per set. In addition to these essential materials, a district needed tape recorders equipped with foot-operated start-stop pedals and audio-active earphones. Tape recorders vary considerably in price. The model most generally used in the project was equipped for audio-active microphone and headset, at a unit cost of $200. The audio-active microphone and headset came to a price of about $40. The foot-operated start-stop pedal cost about $20.

With the expensive equipment necessary to the operation of SPA, a major question was the number of student stations to be equipped. Since the instruction was self-administered by the student, the number of students that could participate at any one time depended upon the number of tape-recorder stations available. Some teachers allowed part of the class to take SPA while other students engaged in another activity.

Individual booths and the installation of electrical outlets, in the construction of a language laboratory, cost relatively little, though here again one could spend considerable money on remodeling if it were so desired. For example, a typical laboratory set up with eight stations, including special tables, electrical outlets, extension cords, plywood partitions, and the labor to construct the booths and paint them, came to about $790. The most expensive item here, of course, was the tape recorder, particularly if one was purchased for every student participating in the program. It is obvious that equipment is far more crucial in this program than in the others, though naturally the television set is an indispensable item in UAE classes. For the district averaging $1,763 per class, the expense was incurred in the purchase of booklets, tapes, and 17 tape recorders, and the start-stop pedal and audio-active headset for each. The total cost for this district came to $5,289, but with three classes in operation, the cost per class was one-third this amount.

The district that spent $11,204 per class used its money for essentially the same kinds of materials and equipment, but the quantities were greater. This district had just one class and purchased 40 sets of tapes and booklets, 40 tape recorders at $122.50 apiece, and 40 sets of audio-active earphones. The major items were tapes and tape recorders. Here again, it becomes obvious that the amount of money spent depends primarily upon the administrative decision regarding the extent to which foreign language should be implemented at the elementary level. It must be remembered, however, that the data for this study were gathered during the instructional year immediately preceding the first year of mandated foreign language instruction at the elementary level.

Cost figures were examined further on the basis of district characteristics, i.e., in terms of the average cost per class of operating a particular program within districts of given characteristics of size, population density, and type of state aid received. There was a slight suggestion in the data that the small, rural district tended to spend less money in the project than did the large, metropolitan district, though the number of small, rural districts in the study was very low, no more than two for each course of instruction.

Cost in relation to size, population density, and type of state aid received are shown in Table 112. As can be seen in the upper third of the table, there is the suggestion that cost was an increasing linear function of the size of the district for both MLA and SPA classes. The relationship for UAE classes was curvilinear, however. Though the large districts using UAE tended to spend more than the small districts, the medium sized districts tended to spend more than twice as much money as did the large districts.

Cost in relation to the population density of the district, shown in the middle of Table 112, was slightly curvilinear for both UAE and SPA classes, with the urban districts tending to spend more money than the metropolitan districts. However, the metropolitan districts in all three approaches tended to spend more money in the project than did the rural districts.

Type of state aid received also showed a curvilinear relationship to the amount of money spent in the project for both UAE and SPA classes, with districts receiving equalization aid tending to spend less money than those receiving either basic or supplementary aid. For MLA classes, the relationship was linear, with districts receiving supplementary aid tending to spend more.

There was a high positive correlation between size and population density and a negative correlation between type of state aid and population density. Consequently, the three parts of the table were not independently derived. As mentioned earlier, one general conclusion to be drawn from Table 112 is that the small, rural district tended to spend less money per class than did the large, metropolitan district.

In-service Training

Few districts listed any expenditures for in-service training. In a few cases, the cost of in-service training was absorbed by the teachers involved. One district listed a mere $15 for in-service training, operating 6 classes using MLA materials. Another district, however, listed $1,656 for in-service, for 9 MLA classes. In this particular instance, the figure reflects the prorated cost of time spent by the foreign language coordinator of the district in consulting with teachers in the project, plus the prorated time of teachers spent in other than regularly scheduled duties.

TABLE 112

AVERAGE EXPENDITURE FOR EQUIPMENT AND MATERIALS PER CLASS BY COURSE AND BY DISTRICT SIZE, POPULATION DENSITY, AND TYPE OF STATE AID

District Characteristics	Course		
	MLA	UAE	SPA
Size			
Small......................	$ 92	$172	$3,665
Medium.....................	115	607	4,023
Large......................	210	229	4,734
Population Density			
Rural......................	92	172	3,665
Urban......................	108	408	4,666
Metropolitan...............	180	395	4,393
Type of State Aid			
Basic......................	81	360	4,252
Equalization...............	150	292	3,519
Supplemental...............	184	444	4,969

The variation in cost for in-service training was greater within a particular method than between methods. As one would expect, however, there was very little cost for teacher in-service training for classes using SPA. The largest in-service expense reported by a district using SPA was $300, and this was again based on the cost accounting of district personnel involved in the project. For those classes using UAE, the largest expense reported by a district for in-service training was a cost accounting figure of $653.

Maintenance

The expenditure for maintenance was generally greater for SPA classes than for UAE classes, which in turn was greater than for MLA classes, as one might expect, because of the relative amounts of equipment involved. For SPA classes, tape recorders might need repair, or foot pedals might break down. One district spent nearly $500 for repairs and maintenance, but this was exceptional. This figure included replacing recorders and headsets, the wiring and installation of replaced equipment, and other repairs. One district listed maintenance costs of $1,570 for four MLA classes, but this involved extra pay for four Spanish teachers who taught Spanish before school officially began each day. The average for maintaining classes in SPA was about $63 per class. The average cost of maintaining classes in UAE was about $4 per class. Maintenance for MLA classes turned out to be less than one dollar per class.

The question might be raised as to what was the overall cost per district across methods. Though there was a considerable range between the two extremes, most of the costs per district fell into a range between $4,000 and $5,000. This includes matching funds under NDEA. The exceptions to this range did not fit any particular pattern and would seem to be based primarily on idiosyncratic situations within a few districts.

Time Factors

An important part of assessing the cost of using an instructional program is the length of time spent by various staff personnel within the school system in planning, ordering materials, accounting, maintenance, supervision, in-service training and so forth. These costs are rarely reflected in the actual cost figure for the implementation of a new program, yet these are very real considerations. Administrators were asked, therefore, to give an estimate of the amount of time they spent connected with the Spanish language research project. It was impossible after the fact for them to analyze the amount of time allotted to each individual course, where more than one course of instruction was used in a particular school system, or to determine the amount of time spent on each particular type of activity. It was thought sufficient to ask, in general, for an estimate of the length of time spent on activities related to the project.

However, for those districts that had only one course of instruction involved in the project, it was possible to indicate how much administrative time was spent on each course. Table 113 shows this data. It can be seen in the table that, in general, more time was spent on SPA than on either MLA or UAE, in every category except supervisors' time during the period of instruction. Somewhat more time was spent on MLA than on UAE in every category except the work of a maintenance technician. With very little equipment involved, there was little or no maintenance time necessary to the operation of MLA classes. As expected, the maintenance technician spent relatively large amounts of time in SPA both prior to the beginning of instruction and during instruction. It can be seen further that MLA classes

TABLE 113

AVERAGE NUMBER OF HOURS SPENT BOTH PRIOR TO THE BEGINNING OF INSTRUCTION AND DURING THE SCHOOL YEAR BY VARIOUS SCHOOL OFFICES AND STAFF PERSONNEL FOR EACH COURSE

Personnel	Prior to Instruction			During Instruction		
	MLA	UAE	SPA	MLA	UAE	SPA
Superintendent's office........	1.50	0.40	8.50	2.00	0.10	7.00
Business office........	0.25	0.20	5.50	0.25	0.10	1.50
Maintenance technician....	0	0.10	8.00	0	0.40	10.00
Supervisors........	1.00	0.50	1.50	8.0	1.50	2.0
Principals.........	1.00	0.30	7.00	2.75	0.80	9.00

received relatively more attention from supervisors during instruction than did either of the other methods.

As to what activities were involved in time spent by various school offices and staff personnel, it was frequently mentioned that district superintendents spent time preparing project applications under NDEA, planning for teachers, talking to the field consultant for the project, sending purchase orders, preparing for the school board meeting, visiting classes, and so forth. It is interesting that only one district mentioned the recruitment of teachers specifically as a function of the superintendent, though this activity may have been subsumed in some instances under some more general category such as planning for the program or planning for teachers. Very few districts actually hired new teachers for the project. However, at some stage of the decision-making regarding participation, it was necessary to determine what teachers in the district were qualified to teach a project class and what was their availability.

The business office engaged in activities such as packaging and mailing materials, preparing purchase orders, authorizing equipment repair, maintaining cost records, accounting, handling billing, etc. In some cases, functions of the business office were similar to those mentioned for the superintendent. For example, business offices frequently prepared NDEA applications. It was also mentioned that business offices had corrected test materials and completed student information sheets on student characteristics from cumulative record files.

Activities for the maintenance technician included, for UAE classes, installing TV antennae, installing and tuning receivers, repairing sets, and checking rooms and sets. For SPA classes, the maintenance technician installed wiring and electrical outlets, adjusted lighting, built booths, installed work tables, repaired or made adjustments on cables for foot pedals, and repaired recorders, headsets, and foot pedals.

Supervisors were either foreign language coordinators at the district level or a senior teacher at the school level. Their activities included a multiplicity of tasks from the splicing of tapes--essentially a maintenance function--to the selection of teachers. Predominantly, the task of the supervisor was to coordinate project activities locally, working closely with the field consultant from the State Department of Education and to supervise and orient teachers using the various sets of materials. Many of the local supervisors participated in the testing phase of the project, orienting teachers in the testing methods or administering tests themselves. It could be said that the major function of the local supervisor was in-service training of the teachers.

The activities of the principals of schools in the project classes did not seem appreciably different from functions already described. It seems that principals did very much the same sorts of things that supervisors did: holding in-service sessions for teachers, organizing the program, acting as liaison between the teacher and the field consultant for the project, checking equipment, assisting the teacher in numerous ways, etc. Principals even assisted in maintenance functions, such as troubleshooting equipment, or helping to install it initially.

The functions of the teachers have been spelled out elsewhere and will not be discussed in this chapter.

CHAPTER IX

SUMMARY AND RECOMMENDATIONS

Summary

The purpose of this project was to develop absolute assessment procedures as a basis for making decisions about selecting a language course, developing improved instructional materials, modifying learning conditions, and revising course objectives. It was designed to obtain greater objectivity in evaluating achievement in the four basic language skills (i.e., listening, speaking, reading, and writing) than had been possible with existing methods.

A field test of three different approaches to teaching Spanish to sixth-grade students was conducted. The three approaches were: (1) instruction by a qualified foreign language teacher (MLA language course); (2) programmed self-instruction (SPA language course); and (3) instruction by television (UAE language course). A total of 28 different tests were developed for the three Spanish courses (MLA--8; SPA--16; UAE--4). These tests were unique to each course of study. They were not used to compare the three courses of instruction with each other, but were designed to evaluate the extent to which each language course achieved its own objectives under specified learning conditions. The test instruments are referred to as criterion-referenced tests. They are based on an absolute criterion, rather than a relative standard of achievement.

Each of the four basic language skills was evaluated separately. Within each skill separate tests were developed for vocabulary and grammar. Procedures were developed for scoring the speaking and writing tests which increased objectivity and changed the scorer's role from decision-making to rule-following.

This study demonstrated the feasibility of criterion-referenced testing as applied to a large scale field test of three foreign language courses. It indicated that the traditional method of evaluating only a small sample of the specific linguistic objectives of a language course may obscure serious deficiencies in materials and/or learning conditions. The test results in the study showed that, with few exceptions,[1] all three language courses failed to achieve their basic linguistic objectives under the learning conditions involved in this study. Substantial modifications to materials and/or learning conditions would be required to achieve the goal of having almost all students acquire sufficient mastery of the basic language objectives to profit from the next sequence of instruction.

The results also showed that in all courses listening comprehension objectives were achieved to a greater degree than speaking objectives, vocabulary greater than grammar, grammar greater than grammar transfer, and in pronunciation mimicry greater than constructed response. Finally, the data indicated that, for predictive purposes, none of the independent variables showed a consistently strong relationship with the various test scores. This supports the frequently stated view that the factors involved in foreign language learning under usual classroom conditions are complex and that degree of success in learning a foreign language cannot be predicted accurately from any individual independent variable.

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[1] The exceptions were the SPA vocabulary tests in listening comprehension and reading.

It was found that multiple regression analysis increased the level of predictability somewhat over that reached through the use of any single independent variable. However, even an extensive multiple regression analysis in which different combinations of independent variables were tried did not produce predictability of a level that would be useful in a practical school situation. It may very well be that it is necessary to design studies to examine the interactions among independent variables if predictability in an uncontrolled setting is to be increased much beyond the levels found in this study.

Recommendations to School Districts

Schools should not assume that substantial numbers of students learn all, or even most, of what is "covered" in a given course.

The strongest recommendation that can be made is for the establishment of a continuous evaluation-revision cycle as an empirical basis for modifying learning conditions, instructional materials, or objectives. There is a need to depart from the traditional approach of evaluating students for the purpose of assigning grades. Instead, an experimental attitude should be adopted in the classroom. The emphasis should be on evaluating the instruction rather than the students. The recommended evaluation-revision cycle should include the detailed specification of objectives, comprehensive evaluation of achievement, and continual adaptation of the learning situation in accordance with the data collected. This cycle should be continued until all or nearly all of the students are achieving the minimal level of performance which has been specified as necessary for satisfactory progress in the next course.

The development of criterion instruments and of the entire evaluation-revision process for developing effective instructional materials will be costly in money and manpower. However, since many school districts use the same materials year after year, it is strongly urged that joint efforts at county, state, and national levels be undertaken to develop the necessary instruments and techniques. (The tests developed in this project can serve as a model for developing similar evaluation instruments adapted to the specific content of other courses.) As more districts participate, more data will be accumulated on which to base course modifications, and the evaluation-revision cycle will be accelerated.

Dramatic improvements will not come overnight; a number of years and much diligent effort will be required for significant progress to take place. However, to continue with the typical end-of-course student evaluation and grade assignment (ignoring the problems implicit in the wide range of student performance) is to resign ourselves to producing only a handful of high school and college graduates who have acquired anything approaching a functional command of a second language.

Criterion-referenced tests measured the learning of specific vocabulary, grammatical, and phonological elements in a course of instruction. Teachers should use these tests in three ways: (1) to provide diagnostic information on a given student's learning and learning difficulties; (2) to suggest modifications to learning conditions, instructional materials, or objectives for the next group of students receiving the instruction just evaluated; and (3) to provide a basis for grouping students for subsequent instruction.

Further, school districts should urge teachers to follow the procedures recommended by the course developer as closely as possible so that baseline data can be obtained on the effectiveness of the course when used as intended. Major departures from recommended procedures, along with the reasons for such changes, should be recorded so that the feasibility and adequacy of the procedures can be analyzed. The systematic use of special supplementary materials should also be noted. Where achievement varies significantly from year to year, the information on changes to the course will aid in attempting to analyze underlying causes.

School districts should require from publishers more explicit information on course objectives and course effectiveness than is currently provided. A more detailed statement concerning this point can be found in the following section.

Recommendations to Course Developers and Publishers

Published materials should contain an explicit statement of course objectives. Despite varying conditions under which the materials are to be used, the course developer should state the number of vocabulary, grammatical, and phonological elements the student is expected to control at the conclusion of instruction. The specific linguistic elements should be identified, classified, and listed. The objectives should be further described in terms of the manner in which the student should be able to control the linguistic elements, the conditions under which he should be able to perform, the level of performance that will be considered satisfactory, and the means by which satisfactory performance can be recognized. The minimum level of performance necessary for a student to progress to the next sequence of instruction should be specified. Where applicable, a distinction should be made between specific minimum and maximum course objectives.

Data should be furnished in the instructor's manual on the amount of practice provided for each linguistic element representing a course objective (i.e., the number of lessons and exercises in which the element appears, indicating the number of times the element is the prime objective of the exercise and the number of times the element is just used incidentally). These data, in conjunction with student performance data, can be used to evaluate the effectiveness of specific types of practice in teaching particular language features and in establishing a hierarchy of difficulty for these features.

The target population for which the course is designed and the learning conditions necessary for its effective use should be described. Data concerning the effectiveness of the course under specified conditions should be included, and the criterion instrument used should be available for course users. In effect, the type of field testing conducted in this study would ideally take place prior to final publication and commercial distribution of instructional materials.

At the end of each unit in an instructional sequence, tests should be provided indicating the minimum level of performance necessary for students to advance to the next unit in the sequence. This would be helpful to schools, using the materials under varied conditions, in determining the pacing appropriate for their local situation.

The development of materials that will enable most students to achieve a specified minimal level of performance presupposes an empirical evaluation-revision cycle in which each lesson is pretested on students from the target population, and in which revisions are based on a detailed, objective evaluation of student performance. This type of empirical approach to material construction will most certainly increase developmental costs, and these increases will eventually be reflected in the retail cost of the product. However, in the long run the economic efficiency of this process will be much greater than that of the traditional approach, in which money may be spent year after year without sufficient information regarding the effectiveness of the instruction. An effort of the magnitude prescribed here is necessary if larger numbers of students are to be provided with a successful foreign language experience.

APPENDIX A

MLA COURSE OBJECTIVES AND
STUDENT PERFORMANCE DATA

Objectives from Published Course

The statement presented below is an excerpt from the introduction of the MLA Teacher's Guide.[1]

1. Real Spanish. This course of study is planned to enable a competent teacher to teach as much spoken Spanish as an average eight-year-old child can learn with pleasure in a year's time. The guiding principle is the teaching of real Spanish in a situation which is natural to the child, but constant attention has been given to the broader outcomes, such as cultural penetration, of second language study.

2. Objectives. The benefits which accrue to a child who learns a second language are of at least two types: linguistic and cultural, insofar as these can be separated. The objectives of a course to teach the child a second language should be to communicate these benefits efficiently and with pleasure.

2.1 Linguistic Objectives. Since the guiding principle is the teaching of real Spanish in a situation which is natural to the child, no simplification of the language has at any time been introduced. The utterances are manufactured only in the sense that they have been kept short and situationally confined. Absolutely no restriction of a grammatical or structural orientation has been imposed in the evolution of the dialogues. All utterances are equal in the sight of the child and can be mastered without regard to order of logical complexity so long as they are of no greater complexity of content than the English utterances which he is already capable of making.

The problem of language learning is the acquisition of speech patterns rather than the acquisition of words. "Acquisition" means "mastery as habitual stimulus-response behavior without necessity for conscious thought." The emphasis in this Guide is therefore on the most varied possible manipulation in realistic contexts of only as much vocabulary as can be readily assimilated in the time available. All logical and pedogogical assumptions were taken as subsidiary to that of having the child hear and imitate, at all times, the manners and styles and levels of speech which would be realistic facsimiles of the speech of native Spanish-speaking children of the same age and interest group.

2.2 Cultural Objectives. All of the belief and behavior patterns which a group of people living together share are their culture. Patterns of cultural behavior cluster around focal areas of activity, including materials and artifacts, defense, recreation, learning, the use of time and space, interaction of the sexes, work, societal groupings like the family, and communication through symbolic systems such as language. The critical facts about culture, from the educational point of view, are that most of the patterns which make it up are out of awareness, and that those patterns which are in awareness are usually accepted as cultural universals. It is therefore the tendency of participants in one culture to impose their belief systems on those of another, or to assume that "people are pretty much the same all over the world." In some ways, of course, they are, but in the ways of culture the differences are more numerous, and usually of more consequence, than the similarities.

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[1] Material in this section is quoted from MLA Teacher's Guide : Beginning Spanish in Grade Three. Mildenberger, K. (Ed.) (Educational Publishing Corporation, Darien, Conn., 1958). By permission of the publisher.

One of the most far-reaching benefits of second-language teaching in the elementary school is the break-through toward something broader than mono-cultural orientation. Even though statements about the culture of Spanish speakers may never be made in teaching the child to speak Spanish, he is learning to manipulate the tool which both reflects and transmits the culture of those to whom the language is native. He is learning that the differences between two cultural systems (English and Spanish) are arbitrary, not logical; that a system which differs from his native system is neither odd nor inferior, but just different; that his own language slices up the world of experience in a way that can claim no unique validity; that ways of thinking differ as do ways of speaking, and perhaps in proportion to those differences; he is, in short, developing an attitude of cultural relativism. But he is not developing this attitude by hearing about it. The objective is not primarily to communicate simple cultural facts nor even to develop appreciation of Hispanic culture. The objective is to reduce mono-cultural orientation by active, pleasurable participation in a different cultural pattern.

Course Author's Statement Supplementing Published Course Objectives

The material presented below was obtained from the course author at the beginning of Project D-177 to supplement the statement of objectives in the introduction of the published teacher's guide.

General

A. To present the Spanish language to eight-year-old children in a form that is natural and accurately related to contexts familiar to Spanish-speaking children of the same age.

1. The form of the language should be realistic--representing the kind of language performance children use and need.

2. The interpretation should also be natural, and every effort should be made to encourage the teacher not to adopt an over-formal or precise interpretation in the classroom.

3. In class the child hears, imitates, and dramatizes capsule situations that he can identify himself with. Games, songs, rhymes, and simple competitions are added to provide interest and variety.

4. Emphasis is on participation with identification on the part of the student, with learning accelerated by a certain amount of manipulation within realistic contexts, though for the most part formal drill is postponed until following years.

B. To begin the presentation of Hispanic culture as a system of beliefs, attitudes, values, activities, and social organization different from the student's own--and to develop an attitude of cultural relativism that accepts new cultural patterns in their own context without judging them as being per se inferior or odd.

1. The student is encouraged to participate, at least vicariously, in cultural patterns that would be appropriate for his Hispanic counterpart.

2. An effort should be made to reduce monocultural orientation by active,

pleasurable participation in new cultural patterns.

Specific

A. Students should learn to recognize:

1. All vocabulary items presented in the course.
2. All dialogues and the situations they treat.
3. Substitutions of familiar vocabulary in comparable sentence slots--when presented in situations that are known and meaningful to the students.
4. Identification of patterns.
5. Native or near-natively produced Spanish, recognizing known lexical items and grammatical patterns when spoken at normal conversational speed, reacting appropriately to statement and question patterns of intonation, etc.

B. Students should learn to produce:

1. Any role in any dialogue, plus all structural filler material.
2. Simple substitutions and logical variations in meaningful contexts.
3. All songs and rhymes.
4. A simple conversation in any area of experience represented by the guide.
5. Spanish pronunciation as good as the teacher's, if appropriate guidance is available.

TABLE 114

PERCENTAGE OF STUDENTS CORRECTLY ANSWERING EACH LISTENING COMPREHENSION VOCABULARY ITEM TESTED AT END OF COURSE IN MLA CLASSES, SHOWING THE CONTEXT IN WHICH EACH RESPONSE WAS SOUGHT*

Number of Item	Item	Percentage of Students Answering Correctly	Number of Item	Item	Percentage of Students Answering Correctly
1	Es grande.	96	17	Es el nene.	89
2	Buenos días, niños.	85	18	Es un libro.	97
3	Levántate, por favor.	96	19	Es la escalera.	90
4	Esta es la sala.	78	20	Es un lápiz.	96
5	Ve a la ventana.	63	21	Voy corriendo.	86
6	Esta es una casa.	95	22	Esta es una muñeca.	87
7	Me llamo Pedro.	88	23	Ve a la puerta.	90
8	Son hermanos.	61	24	Buenos días.	98
9	Esta es una escuela.	95	25	Ve a buscar el perro.	76
10	Este es un gato.	95	26	Ve a la pizarra.	88
11	Mira mi pistola.	97	27	Siéntate.	97
12	Es regular.	87	28	Toma este libro.	91
13	Es la tiza.	90	29	Este es el cuarto de Paco.	67
14	¿Dónde está el baño?	67	30	Pasa, Pepito.	87
15	Este es un perro.	89	31	Dale la tiza.	95
16	Está fuera.	60	32	Hola, niño.	92

* Vocabulary items are underlined. The Spanish utterances are listed in the order in which they were presented to students on the final test. The required student response was a brief Spanish utterance. Only the underlined words were scored.

TABLE 114 Continued

Number of Item	Item	Percentage of Students Answering Correctly
33	Ya me voy.	64
34	Está arriba.	63
35	Es la mamá.	99
36	Tu perro es pequeño.	96
37	Es una pelota.	93
38	Es una familia.	94
39	Ve a la mesa.	87
40	Buenos días, señor.	92
41	Es el papá.	99
42	Está durmiendo.	70
43	Juguemos en mi cuarto.	73
44	Este es un vaquero.	86
45	Esta es una ventana.	90
46	Rebota la pelota.	79
47	Es el número seis.	96
48	¡Gracias!	95
49	¿Cuándo viene papá?	83
50	Es amarillo.	95
51	Ahora, dale el libro a él.	57
52	Es el número cuatro.	97
53	Pues, ya me voy.	46
54	Subamos a mi cuarto.	52
55	María con Luisa.	48
56	¿Qué es esto?	77
57	Es el número ocho.	98
58	Por favor.	81
59	Píntala de amarillo.	42
60	Es marrón.	55
61	¿Qué quieres?	57
62	Es el número dos.	99
63	Hasta luego.	88
64	Sí, tengo uno.	85
65	De nada.	75
66	Es una niña.	85
67	Es el número diez.	98
68	¿De qué color es?	95

TABLE 114 Continued

Number of Item	Item	Percentage of Students Answering Correctly
69	Aquí estoy, mamá.	87
70	Rebota la pelota tres veces.	79
71	¡Cuidado con la escalera!	65
72	Es el número uno.	98
73	Es azul.	97
74	Borra el "dos."	73
75	En el cuarto.	93
76	Es negro.	99
77	Es el número doce.	94
78	Yo soy el señor Gómez.	78
79	¿Qué tienes ahí?	59
80	Es verde.	96
81	Dile a Juanita.	51
82	Es el número tres.	98
83	Mira mi pistola nueva.	83
84	¿Cuándo viene María?	71
85	Está abriendo la puerta.	59
86	¿Cuántos libros tengo?	73
87	Es el número cinco.	98
88	¿Qué hago?	40
89	Es castaño.	65
90	¿Cómo te llamas?	86
91	Ella tiene hambre.	55
92	Es el número siete.	96
93	Bien, gracias.	94
94	¿Dónde está?	55
95	Este es el libro.	88
96	Cuenta de uno a cinco.	81
97	Es el número trece.	94
98	Está cerrando la puerta.	57
99	¿Qué está haciendo?	58

TABLE 114 Continued

Number of Item	Item	Percentage of Students Answering Correctly
100	¿Qué tal, María?	51
101	Escribe el "cuatro."	81
102	Es el número nueve.	96
103	Bueno, Paco.	91
104	¿Bien gracias y usted?	89
105	Ven acá.	93
106	Estoy aquí.	54
107	Es el número once.	96
108	Está ahí enfrente.	65
109	Abre la puerta.	79
110	Mejor subamos a mi cuarto.	65
111	Es blanco.	96
112	Es el número quince.	95
113	Dibuja la casa.	8
114	Es gris.	97
115	Bueno, vamos.	89
116	Pronto viene tu papá.	76
117	Es el número catorce.	89
118	¡Claro que sí!	70
119	El está aquí.	62
120	Cierra la ventana.	74
121	Es rojo.	98
122	¿Quién es el niño?	58
123	Tenemos un gato.	72
124	Mamá la llama.	62
125	Cuatro y tres.	91
126	Hasta mañana.	82
127	¿Es grande tu perro?	74
128	Miren este lápiz.	69
129	Azul o blanco.	92
130	Préstamela.	53
131	Quiero verlo.	49
132	Es muy grande.	88
133	Tiene hambre.	75
134	Es el canal tres.	60

TABLE 114 Continued

Number of Item	Item	Percentage of Students Answering Correctly	Number of Item	Item	Percentage of Students Answering Correctly
135	Este es un picnic.	98	152	Son dos manos.	86
136	Hay postre.	62	153	Es un teléfono.	97
137	Es carne.	80	154	Mira, ¡cómo salta!	46
138	Se cae.	86	155	Hace calor.	68
139	Está lloviendo.	52	156	Es un rábano.	76
140	Es una semana.	57	157	Es el parque.	78
141	Sírveme, mamá.	62	158	Es mi amigo.	85
142	Estas son semillas.	61	159	Es perezoso.	61
143	Es la una.	90	160	Es el mantel.	64
144	Coge la palita.	38	161	Hoy es domingo.	70
145	Hola, hijos.	86	162	¿Te gusta la lechuga?	79
146	Hace frío.	96	163	Hace un día bonito.	53
147	Estos son pepinos.	86	164	Bueno, chicos.	54
148	Ha llegado Pepe.	50	165	Estas son unas servilletas.	81
149	Son abrigos.	80	166	Tiene una zanahoria.	71
150	Hay una película.	56	167	Es la leche.	84
151	Es hora de comer.	64	168	Son helados.	60

TABLE 114 Continued

Number of Item	Item	Percentage of Students Answering Correctly	Number of Item	Item	Percentage of Students Answering Correctly
169	Es un bandido.	67	184	Juega en el jardín.	76
170	Son las papas.	89	185	Es la televisión.	98
171	Este es un supermercado.	90	186	Tiene ventanillas.	38
172	Me gusta el campo.	44	187	¡Paco, corre!	76
173	¡Quédense quietos, niños!	77	188	Siempre me gusta.	34
174	Trae la canasta.	60	189	Es martes.	73
175	Hace sol.	72	190	Quiero volver.	38
176	Este es un auto.	66	191	A la mesa, todos.	74
177	Es el pan.	86	192	Puedo invitar a Pepe.	29
178	Son dos brazos.	74	193	Te agarro, Pepe.	32
179	Juguemos a la pega.	66	194	¡Qué lástima!	63
180	Papá está echando una siesta.	92	195	Un momentito, papá.	82
181	Es la primavera.	48	196	Me como las papas.	64
182	Estas son salchichas.	85	197	Sirvele a María también.	47
183	No saquen los brazos, niños.	53	198	Es hora de comer.	73
			199	Siéntate más cerca.	41

TABLE 114 Continued

Number of Item	Item	Percentage of Students Answering Correctly	Number of Item	Item	Percentage of Students Answering Correctly
200	Está bien.	70	216	Es el número noventa.	87
201	Hay doce meses en el año.	71	217	Se me olvidaron las servilletas.	74
202	Es cierto.	41	218	¿Hace calor en julio?	86
203	Coge la palita.	41	219	Tenemos que volver.	43
204	Es lunes.	93	220	Es el número cincuenta.	81
205	Paco, acércate.	53	221	Creo que sí.	46
206	Vamos en seguida.	60	222	Es jueves.	82
207	Esta es la mostaza.	70	223	¿Quién habla?	51
208	Trae la palita, Pablo.	57	224	¿Puedes ir?	43
209	Vamos al otro lado.	69	225	Parece que ha llegado la primavera.	59
210	Lávate las manos.	75	226	Pasamos por ti a las dos.	63
211	Es el número setenta.	87	227	¿Hace frío en junio?	83
212	Crecen al sol.	56	228	Déjame pedirle.	42
213	Ya es hora.	37	229	¿Cuántos son cinco por cinco?	47
214	Es miércoles.	91	230	¿En qué mes estamos?	57
215	No te sientes tan lejos.	46			

TABLE 114 Continued

Number of Item	Item	Percentage of Students Answering Correctly
231	Es viernes.	86
232	Apúrate, Pepe.	58
233	Hay leche para María.	70
234	Entonces no hay postre para tí.	64
235	¿Hace calor en enero?	65
236	¿Puedo invitar a un amigo?	72
237	¿Para qué vamos, mamacita?	29
238	Déjame perdirle permiso.	80
239	¿Por qué te comes las papas?	48
240	Ellas están listas.	60
241	Hace buen tiempo.	63
242	¿Quieres ver la televisión?	73
243	¿Cuántos son diez menos cinco?	82
244	Está al otro lado.	54
245	Voy a echar una siesta.	65
246	Me da lo mismo.	46
247	Es sábado.	93
248	Hoy es lunes.	80
249	Hay que ir de compras.	47
250	Tengo mucha hambre.	81
251	Es el número cien.	83
252	¿Qué día es?	74
253	Está cerca de la pared.	35
254	Están esperando en el auto.	58
255	Está satisfecho.	79
256	¿Crecen a la sombra?	68
257	Ya compraste las salchichas.	52

TABLE 114 Continued

Number of Item	Item	Percentage of Students Answering Correctly	Number of Item	Item	Percentage of Students Answering Correctly
258	Paremos aquí.	42			
259	Es muy lenta.	49			
260	¿Las sembramos aquí, María?	59			
261	Es el número cuarenta.	84			
262	Vamos si hace buen tiempo.	65			
263	Pon la mesa.	78			
264	Ya va a terminar.	43			
265	Lávate las manos antes de comer.	73			
266	Me gustan los helados.	65			
267	Póngase los abrigos.	67			
268	¿Tú haces las compras?	64			
269	¡Qué aire tan fresco!	64			
270	¿Qué quieres, mamacita?	86			

TABLE 115

PERCENTAGE OF STUDENTS CORRECTLY ANSWERING EACH LISTENING COMPREHENSION GRAMMAR ITEM TESTED AT THE END OF THE MLA COURSE, WITH A DESCRIPTION OF EACH FEATURE TESTED*

Number of Item	Item	Description of Feature Tested	Code†	Percentage of Students Answering Correctly
1	Es Juan.	Irregular form, verb "ser", 3rd person singular, present tense	Mvi(7)	70
2	Te llama mamá.	Noun phrase as direct object (pronoun) transitive verb, noun phrase as subject	3aa(inv)	49
3	Dámela.	Direct object pronoun, 3rd person, feminine singular	Mp(5)	85
4	Quieren jugar en la sala.	Noun phrase as subject (unexpressed), transitive verb with verb complement	5f(u)	80
5	¿De qué color es la pizarra?	Interrogative pattern (information question): interrogative phrase, verb "ser", noun phrase as subject expressed	?(7)	90
6	Es el niño.	Noun phrase as subject (unexpressed), verb "ser", noun phrase as predicate nominative	1a(u)	88
7	¿Tienes un perro?	Interrogative signal (intonation in yes-no question) with noun phrases as subject unexpressed	?(2)	92

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* In items testing morphology, the feature tested is underlined. The items are listed in the order in which they were presented to students on the final test. The response alternatives were printed English sentences.

† The coding system was designed as an aid in referring to identical features across tests in listening and speaking grammar and grammar transfer. The coding system applies to all three courses. An explanation of the system is given in a note at the end of the table, p. 218.

TABLE 115 continued

Number of Item	Item	Description of Feature Tested	Code	Percentage of Students Answering Correctly
8	Es mi muñeca.	Possessive adjective, 1st person singular, with singular noun (masculine or feminine)	Ma(6)	80
9	Este es el cuarto de Paco.	Use of "de" to show possession	NSP(1)	58
10	¿Cómo lo llamas?	Regular form, "ar" verb, 2nd person familiar singular, present tense	Mvr(2)	66
11	Ve a buscar a Chispa.	Imperative, irregular form, verb "ir", familiar singular	Mvi(18)	80
12	Son dos niños.	Irregular form, verb "ser", 3rd person plural, present tense	Mvi(9)	58
13	Yo soy el señor Martínez.	Noun phrase as subject, verb "ser", noun phrase as predicate nominative	1a	63
14	Mira mi muñeca nueva.	Imperative, regular form, "ar" verb, 2nd person, familiar singular	Mvr(18)	67
15	Tengo un libro.	Irregular form, verb "tener", 1st person singular, present tense	Mvr(4)	66
16	Yo me llamo Pedro.	Noun phrase as subject, noun phrase as direct object (reflexive pronoun), transitive verb with noun phrase as complement	5aa(r)	53
17	Es un niño.	Masculine singular noun, "o" ending	Mn(1)	77
18	¡Dale la tiza!	Pronoun indirect object, 3rd person singular, (masculine or feminine)	Mp(6)	23

TABLE 115 continued

Number of Item	Item	Description of Feature Tested	Code[†]	Percentage of Students Answering Correctly
19	Voy corriendo.	Noun phrase as subject (unexpressed), intransitive verb, present participle of verb	5hh(u)	69
20	¿Cómo estás, Paco?	Irregular form, verb "estar", 2nd person, familiar singular, present tense	Mvi(11)	65
21	Ven acá.	Imperative, irregular form, verb "venir", 2nd person familiar singular	Mvi(17)	94
22	No tiene un gato.	Negative pattern: noun phrase as subject (unexpressed), negative particle, transitive verb, noun phrase as direct object	N(6)	72
23	El libro es verde.	Noun phrase as subject, verb "ser", predicate adjective	1b	96
24	¡Dile que venga!	Irregular subjunctive form, verb "venir", 3rd person singular	Mvi(23)	73
25	¿Cómo te llamas?	Regular form, "ar" verb with reflexive pronoun, 2nd person singular familiar, present tense	Mvr(2) (r)	87
26	Aquí estoy.	Irregular form, verb "estar", 1st person singular, present tense	Mvi(10)	71
27	Los niños juegan a la pega.	Noun phrase as subject, transitive verb, relator word, noun phrase as direct object	3a	77

[†] The coding system was designed as an aid in referring to identical features across tests in listening and speaking grammar and grammar transfer. The coding system applies to all three courses. An explanation of the system is given in a note at the end of the table, p. 218.

TABLE 115 continued

Number of Item	Item	Description of Feature Tested	Code	Percentage of Students Answering Correctly
28	Voy a la pizarra.	Irregular form, verb "ir", 1st person singular, present tense	Mvi(1)	41
29	¿Qué tienes tú?	Interrogative pattern (information question): interrogative word, transitive verb, noun phrase as subject	?(5)	55
30	Pepe, dile a Juanita que venga acá.	Imperative, irregular form, verb "decir", 2nd person familiar singular	Mvi(24)	80
31	¿Dónde está tu hermana?	Possessive adjective, 2nd person familiar singular, with singular noun (masculine or feminine)	Ma(7)	66
32	Dame la pelota.	Pronoun indirect object, 1st person singular (masculine or feminine)	Mp(1)	83
33	Me llamo María.	Regular form, "ar" verb with reflexive pronoun, 1st person singular, present tense	Mvr(1) (r)	90
34	No, yo no tengo un perro.	Recognition of negative signal preceding verb in a sentence following utterance "No"	N(3)	82
35	¿Es pequeña la tiza?	Interrogative pattern (yes-no question): verb "ser", predicate adjective, noun phrase as subject	?(8)	49
36	Soy Paco.	Irregular form, verb "ser", 1st person singular, present tense	Mvi(5)	46
37	Tenemos un gato.	Regular form, verb "tener", 1st person plural, present tense	Mvr(8)	45

TABLE 115 continued

Number of Item	Item	Description of Feature Tested	Code[†]	Percentage of Students Answering Correctly
38	¿Cuándo pones la televisión?	Regular form, verb "poner", 2nd person familiar singular, present tense	Mvr'(12)	39
39	¿Dónde está la mesa grande?	Position of descriptive adjective following noun	NSP(2)	73
40	Se cae.	Regular form, verb "caer", 3rd person singular, present tense	Mvr'(16)	50
41	Se ve la escuela de la ventana.	Reflexive pronoun "se" to indicate indefinite agent	NSP(3)	50
42	Tú me pones la mesa.	Noun phrase as subject, noun phrase as indirect object (pronoun), transitive verb, noun phrase as direct object	4aa	30
43	Se cayó.	Regular form, verb "caer", 3rd person singular, preterite tense	Mvr'(17)	62
44	Se me olvidaron las servilletas.	Noun phrase as direct object (reflexive pronoun), noun phrase as indirect object (pronoun), transitive verb, noun phrase as subject	4b(inv)	73
45	Pon la mesa.	Imperative, irregular form, verb "poner", 2nd person familiar singular	Mvi(20)	85
46	¿Está tu casa cerca de la escuela?	Interrogative pattern (yes-no question): intransitive verb, noun phrase as subject, adverb	?(10)	71

[†] The coding system was designed as an aid in referring to identical features across tests in listening and speaking grammar and grammar transfer. The coding system applies to all three courses. An explanation of the system is given in a note at the end of the table, p. 218.

TABLE 115 continued

Number of Item	Item	Description of Feature Tested	Code	Percentage of Students Answering Correctly
47	Me gustan.	Regular form, "ar" verb, 3rd person plural, present tense	Mvr(5)	29
48	Vamos a verlas.	Pronoun direct object, 3rd person feminine plural	Mp(4)	49
49	¡Pónganse los abrigos!	Imperative, irregular form, verb "poner" with reflexive pronoun, 2nd person formal plural	Mvi(21)	75
50	No crecen bien a la sombra.	Recognition of negative signal in initial position in utterance with noun phrase as subject unexpressed	N(2)	71
51	Es para ti.	Pronoun (after preposition) 2nd person singular familiar (masculine or feminine)	Mp(9)	34
52	Paco está durmiendo.	Irregular form, present participle, verb "dormir"	Mvi(25)	50
53	Tenemos que volver al otro lado.	Noun phrase as subject (unexpressed), transitive verb, relator word, infinitive of verb	5g(u)	49
54	Crecen mejor al sol.	Noun phrase as subject (unexpressed), intransitive verb, adverb	2a(u)	67
55	Hablamos con Paco.	Regular form, "ar" verb, 1st person plural, present tense	Mvr(4)	34
56	Te vas a comer tres pepinos.	Noun phrase as subject (unexpressed), noun phrase as indirect object (reflexive pronoun), intransitive verb, relator word, infinitive of verb, noun phrase as direct object	7b(u)	65

TABLE 115 continued

Number of Item	Item	Description of Feature Tested	Code[†]	Percentage of Students Answering Correctly
57	Hay que ir de compras.	Verb "hay", relator "que", infinitive of verb	6c	35
58	¿Qué hacen?	Regular form, verb "hacer", 3rd person plural, present tense	Mvr'(10)	41
59	Mamá y María no están listas.	Recognition of negative signal preceding verb in utterance with subject expressed	N(1)	80
60	¿Está arriba tu cuarto?	Interrogative signal (intonation in yes-no question) with noun phrase as subject expressed	?(1)	68
61	Yo estoy satisfecho.	Noun phrase as subject, verb "estar", predicate adjective	1d	60
62	Ella lo puede agarrar.	Noun phrase as subject, noun phrase as direct object (pronoun), transitive verb with transitive verb as complement	5ff	27
63	Eres muy lenta.	Irregular form, verb "ser", 2nd person singular familiar, present tense	Mvi(6)	53
64	Hay lechuga en el jardín.	Verb "hay", noun phrase as subject, adverb	6a	68
65	Creo que sí.	Regular form, "er" verb, 1st person singular, present tense	Mvr(14)	73

[†] The coding system was designed as an aid in referring to identical features across tests in listening and speaking grammar and grammar transfer. The coding system applies to all three courses. An explanation of the system is given in a note at the end of the table, p.218.

TABLE 115 continued

Number of Item	Item	Description of Feature Tested	Code	Percentage of Students Answering Correctly
66	Voy a buscar a Chispa.	Noun phrase as subject (unexpressed), intransitive verb, relator word, infinitive of verb	5h(u)	72
67	Me gusta el campo.	Noun phrase as indirect object (pronoun), transitive verb, noun phrase as subject	4c(inv)	67
68	Quiero verlo.	Noun phrase as subject (unexpressed), transitive verb with transitive verb as complement, noun phrase as direct object (pronoun)	5ff(u)	69
69	Está muy satisfecho.	Regular form, verb "estar", 3rd person singular, present tense	Mvi(12)	25

NOTE TO TABLE 115

CODING SYSTEM USED FOR LABELING FEATURE TESTED IN GRAMMAR AND GRAMMAR TRANSFER TESTS

All items testing syntax begin with the numbers 1 through 7 or the symbols ?, N, I, and NSP.

The numbers 1 through 6 represent six basic sentence patterns. The number 7 represents a pattern derived from basic sentence patterns. Small letters after the initial number represent a variation of that basic pattern. At the end of the code the following symbols may be present in parentheses: (u), meaning unexpressed subject; (inv), meaning inverted; (r), meaning reflexive, and (Ip), meaning imperfective participle.

Syntax items beginning with symbols other than numbers have the following meanings:

? = interrogative pattern

N = negative pattern

I = imperative pattern

NSP = non sentence pattern

Numbers in parentheses after these symbols indicate a subcategory.

All items testing morphology begin with a capital "M". Small letters following the capital "M" have the following meanings:

n = noun

vr = verb, regular form

vr' = verb, regular form, not all forms of verb regular

vi = verb, irregular form

a = adjective

p = pronoun

Numbers in parentheses at end of code indicate a subcategory.

TABLE 116

PERCENTAGE OF STUDENTS CORRECTLY ANSWERING EACH LISTENING COMPREHENSION GRAMMAR TRANSFER ITEM TESTED AT THE END OF THE MLA COURSE, WITH A DESCRIPTION OF EACH FEATURE TESTED*

Number of Item	Item	Description of Feature Tested	Code[†]	Percentage of Students Answering Correctly
1	Mi casa es amarilla.	Noun phrase as subject, verb "ser", predicate adjective	1b	90
2	Son perros negros.	Noun phrase as subject (un-expressed), verb "ser", noun phrase as predicate nominative	1a(u)	77
3	No, yo no como las papas.	Recognition of negative signal preceding verb in utterance with subject expressed (following the utterance "no")	N(3)	66
4	Lo busca Chispa.	Noun phrase as direct object (pronoun), transitive verb, noun phrase as subject	3aa(inv)	7
5	¿Quiere él otra pelota?	Interrogative signal (intonation in yes-no question) with noun phrase as subject expressed	?(1)	55
6	No escriben la lección.	Negative pattern: noun phrase as subject (unexpressed), negative particle transitive verb, noun phrase as direct object	N(6)	45

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* The items are listed in the order in which they were presented to students on the final test. The response alternatives were printed English sentences.

[†] The coding system was designed as an aid in referring to identical features across tests in listening and speaking grammar and grammar transfer. The coding system applies to all three courses. An explanation of the system is given in a note at the end of Table 115, p. 218.

TABLE 116 continued

Number of Item	Item	Description of Feature Tested	Code	Percentage of Students Answering Correctly
7	¿Es blanco tu perro?	Interrogative pattern (yes-no question): verb "ser", predicate adjective, noun phrase as subject	?(8)	54
8	Usted se llama Paco.	Noun phrase as subject, noun phrase as direct object (reflexive pronoun), transitive verb with noun phrase as complement	5aa(r)	51
9	Tú invitas a la niña.	Noun phrase as subject, transitive verb, relator word, noun phrase as direct object	3a	47
10	¿De quién es esta casa?	Interrogative pattern (information question): interrogative phrase, verb "ser", noun phrase as subject	?(7)	41
11	¿Qué dibuja él?	Interrogative pattern (information question): interrogative word, transitive verb, noun phrase as subject	?(5)	38
12	Tengo la pistola de Paco.	Use of "de" to show possession	NSP(1)	33
13	Va jugando.	Noun phrase as subject (unexpressed), intransitive verb, present participle of verb	5hh(u)	43
14	Pueden pintar mi cuarto.	Noun phrase as subject (unexpressed), transitive verb with transitive verb complement, noun phrase as direct object	5f(u)	62
15	Ellos son profesores.	Noun phrase as subject, verb "ser", noun phrase as predicate nominative	1a	35

TABLE 116 continued

Number of Item	Item	Description of Feature Tested	Code†	Percentage of Students Answering Correctly
16	Le gustan los perros.	Noun phrase as indirect object (pronoun), transitive verb, noun phrase as subject	4c(inv)	60
17	¿Cómo está tu hermana bonita?	Interrogative pattern (information question): interrogative word, intransitive verb, noun phrase as subject (modified)	?(6)	40
18	Hay que buscar a mi hermana.	Verb "hay", relator "que", infinitive of verb	6c	27
19	Puedes jugarlo.	Noun phrase as subject (unexpressed), transitive verb with transitive verb complement, noun phrase as direct object (pronoun)	5ff(u)	51
20	No duerme bien.	Recognition of negative signal in initial position in utterance with noun phrase as subject unexpressed	N(2)	55
21	Se va a comprar dos abrigos.	Noun phrase as subject (unexpressed), noun phrase as indirect object (reflexive pronoun), intransitive verb relator word, noun phrase as direct object	7b(u)	40
22	Tengo que escribir en la pizarra.	Noun phrase as subject (unexpressed), transitive verb, relator word, infinitive of verb	5g(u)	52
23	Paco y papá no están listos.	Recognition of negative signal preceding verb with subject expressed	N(1)	77

† The coding system was designed as an aid in referring to identical features across tests in listening and speaking grammar and grammar transfer. The coding system applies to all three courses. An explanation of the system is given in a note at the end of Table 115, p. 218.

TABLE 116 continued

Number of Item	Item	Description of Feature Tested	Code	Percentage of Students Answering Correctly
24	Se le cayó la pistola.	Noun phrase as direct object (reflexive pronoun), noun phrase as indirect object (pronoun), transitive verb, noun phrase as subject	4b(inv)	55
25	¿Tiene una pistola?	Interrogative signal (intonation in yes-no question) with noun phrase as subject unexpressed	?(2)	79
26	Nosotros lo podemos ver.	Noun phrase as subject, noun phrase as direct object (pronoun), transitive verb with transitive verb as complement	5ff	25
27	Hay un perro en la casa.	Verb "hay", noun phrase as subject, adverb	6a	68
28	¿Están los libros en tu cuarto?	Interrogative pattern (yes-no question): intransitive verb, noun phrase as subject, adverb	?(10)	68
29	Yo me como las salchichas.	Noun phrase as subject, noun phrase as indirect object (pronoun), transitive verb, noun phrase as direct object	4aa	40
30	Duerme un poco.	Noun phrase as subject (unexpressed), intransitive verb, adverb	2a(u)	43
31	Se compran los abrigos en la tienda.	Reflexive pronoun "se" to indicate indefinite agent	NSP(3)	36
32	Vamos a tomar la leche.	Noun phrase as subject (unexpressed), intransitive verb, relator word, infinitive of verb	5h(u)	48

TABLE 116 continued

Number of Item	Item	Description of Feature Tested	Code†	Percentage of Students Answering Correctly
33	Paco y yo estamos escribiendo en la pizarra.	Noun phrase as subject, intransitive verb (estar + present participle), adverb	2a(Ip)	68
34	Las papas frías están listas.	Noun phrase as subject, verb "estar", predicate adjective	1d	58

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† The coding system was designed as an aid in referring to identical features across tests in listening and speaking grammar and grammar transfer. The coding system applies to all three courses. An explanation of the system is given in a note at the end of Table 115, p. 218.

TABLE 117

PERCENTAGE OF STUDENTS CORRECTLY ANSWERING EACH SPEAKING VOCABULARY ITEM TESTED AT END OF COURSE IN MLA CLASSES, SHOWING THE CONTEXT IN WHICH EACH RESPONSE WAS SOUGHT*

Number of Item	Item	Percentage of Students Answering Correctly	Number of Item	Item	Percentage of Students Answering Correctly
1	Es una casa.	76	16	Es una mesa.	78
2	Es una escuela.	55	17	Es un vaquero.	50
3	Es un gato.	83	18	Es una ventana.	46
4	Es una pistola.	80	19	Es una muchacha (niña)†	80
5	Es un cuarto de baño.	31	20	Es blanco.	91
6	Es un perro.	70	21	Es mamá (madre).	88
7	Es un nene.	46	22	Es amarillo.	71
8	Es un libro.	73	23	Es la sala.	41
9	Es un lápiz.	65	24	Es la escalera.	31
10	Es una muñeca.	31	25	Es marrón (castaña).	73
11	Es una puerta.	38	26	Es mi hermano.	25
12	Es una pizarra.	26	27	Es ella.	11
13	Es un cuarto.	33	28	Es grande.	83
14	Es una pelota.	65	29	Es verde.	78
15	Es una familia.	65	30	Es tiza.	86

* Vocabulary items are underlined. The Spanish utterances are listed in the order in which they were presented to students on the final test. The required student response was a brief Spanish utterance. Only the underlined words were scored.

† Words in parentheses were acceptable as substitutes for underlined words.

TABLE 117 Continued

Number of Item	Item	Percentage of Students Answering Correctly
31	Es gris.	68
32	Es nuevo.	18
33	Es rojo.	91
34	Es su (tu) perro.	11
35	Es muy grande.	28
36	Es negro.	86
37	Es papá (padre).	91
38	Es pequeño.	66
39	Es el señor Gómez.	71
40	Es azul.	81
41	Es él.	8
42	Es mejor.	1
43	El está durmiendo (duerme).	10
44	Número catorce.	31
45	Me voy (voy).	3
46	Tengo un gato.	31
47	Está abriendo la puerta (abre).	11
48	Ve a la puerta.	10
49	Voy corriendo.	10
50	Número seis.	86
51	Siéntate.	66
52	Toma el libro.	18
53	Pasa.	11
54	Dale la tiza.	26
55	Número once.	76
56	Juguemos.	3
57	Levántate.	45
58	Ve a buscar el gato.	11
59	¿Qué es ésto?	35
60	Número cuatro.	91
61	Subamos a mi cuarto.	1
62	Aquí estoy.	1
63	Cuidado.	1
64	¿Qué hago?	3

TABLE 117 Continued

Number of Item	Item	Percentage of Students Answering Correctly
65	Número quince.	63
66	Borra la pizarra.	28
67	Soy Carlos.	13
68	¿Qué quieres (quiere)?	0
69	Dile a Paco.	6
70	Número ocho.	86
71	El está cerrando la puerta (cierra).	20
72	¿Qué está haciendo (hace)?	1
73	¿Dónde está?	16
74	Cuenta de uno a cinco.	6
75	Número tres.	95
76	¿Cómo te llamas (Cómo se llama)?	23
77	Rebota la pelota.	14
78	Píntala amarilla.	1
79	Hasta luego.	28
80	Número doce.	81
81	¿Cuándo viene María?	3
82	¿Qué tal, Paco?	3
83	Escribe en la pizarra.	36
84	Ven acá (aquí).	26
85	Número dos.	90
86	Tenemos un gato.	5
87	De qué color es.	28
88	Está ahí enfrente.	11
89	Abre la puerta.	23
90	Número diez.	84
91	Dibuja la casa.	5
92	Vamos.	18
93	Cierra la puerta.	29
94	Mamá está llamando (llama) a Paco.	3
95	Número siete.	91
96	Miren (mire) el libro.	23
97	Quiero verlo.	5

TABLE 117 Continued

Number of Item	Item	Percentage of Students Answering Correctly	Number of Item	Item	Percentage of Students Answering Correctly
98	Buenos días.	46	116	Dos y dos son cuatro.	70
99	Me llamo Pedro.	59	117	Hola, niños.	45
100	Número uno.	93	118	Número cinco.	90
101	Tres veces.	6	119	Papá viene.	0
102	¿Cuántos tiene (tienes)?	1	120	Ahora, vamos.	1
103	Estoy aquí (or inverted).	3	121	Con María.	0
104	El está fuera.	18	122	Por favor.	28
105	Número nueve.	83	123	En el cuarto.	25
106	Préstame el libro.	1	124	De nada.	53
107	Pues, vamos.	0	125	Está ahí.	1
108	Buenos días, niños (muchachos).	56	126	Bien, gracias, y usted (tú)?	40
109	Gracias.	71	127	El gato es regular.	40
110	Número trece.	75	128	Bueno, Paco.	0
111	Este es el libro.	18	129	Está arriba.	36
112	Hasta mañana.	20	130	Mamá viene pronto.	6
113	¿Quién es el muchacho?	1	131	Carlos o María.	31
114	¡Claro!	8	132	Es un picnic.	70
115	Bien, gracias.	28	133	Es una semana.	1
			134	Es una palita.	18

TABLE 117 Continued

Number of Item	Item	Percentage of Students Answering Correctly
135	Es una mano.	46
136	Es un teléfono.	46
137	Es un rábano.	26
138	Es un parque.	68
139	Es una zanahoria.	29
140	Es un auto.	48
141	Es una salchicha.	41
142	Es un jardín.	58
143	Es un año.	6
144	Es un mes.	3
145	Es un bandido.	20
146	Es una canasta.	8
147	Es un abrigo.	16
148	Es un amigo.	20
149	Es mi hijo.	0
150	Es leche.	56
151	Es lechuga.	56
152	Son helados.	25
153	Es pan.	56
154	Es la primavera.	23
155	Es bonito.	14
156	Es carne.	40
157	Es lunes.	50
158	Es (verdad) cierto.	0
159	Es la una.	29
160	Es la mostaza.	26
161	Es el mantel.	11
162	Es el supermercado.	66
163	Es el campo.	13
164	Es la televisión.	88
165	Es el canal tres.	45
166	Es la película.	8
167	Son servilletas.	25
168	Son pepinos.	14
169	Son semillas.	14
170	Son papas.	40

TABLE 117 Continued

Number of Item	Item	Percentage of Students Answering Correctly
171	Es martes.	45
172	Es perezoso.	14
173	Es lento.	8
174	Está cerca.	0
175	¡Mira cómo salta!	8
176	Número noventa.	40
177	Pepe ha llegado.	0
178	Es miércoles.	50
179	Quiero una siesta.	21
180	Quiero volver.	0
181	Coge el libro.	0
182	Hace sol.	5
183	Lávate las manos.	20
184	Es julio.	38
185	Crecen al sol.	1
186	Trae el libro.	0
187	Se me olvidaron los libros.	13
188	Tenemos que volver.	1
189	Es domingo.	51
190	¿Quién habla (está hablando)?	3
191	¿Puedes ir?	0
192	Número cuarenta.	41
193	Paco, acércate.	10
194	Yo agarro a Pepe.	0
195	Miguelito se cae.	35
196	Es jueves.	31
197	Como papas.	13
198	Sírveme.	14
199	Quédense quietos, niños.	0
200	Corre, Paco.	16
201	Tengo dos brazos.	14
202	Juego a la pega.	3
203	Parece la primavera.	0
204	Es junio.	29

TABLE 117 Continued

Number of Item	Item	Percentage of Students Answering Correctly
205	Déjame pedirle.	0
206	Apúrate, Pepe.	5
207	Tengo permiso.	35
208	¿Puedo invitar a Paco?	10
209	Quiero comer.	1
210	Número cincuenta.	38
211	Está lloviendo (llueve).	3
212	Siéntate más cerca.	1
213	Es viernes.	26
214	Pon la mesa.	14
215	Pónganse los abrigos.	13
216	Me gustan los helados.	10
217	El está satisfecho.	21
218	Ellos están esperando (esperan).	0
219	¿Qué día es?	5
220	Es enero.	29
221	Quiero ver televisión.	0
222	Tú compraste el pan.	5
223	Paremos aquí.	0
224	Es sábado.	66
225	El va a terminar.	0
226	Hace frío.	14
227	Tengo hambre.	10
228	Es hora de comer.	1
229	Creo que sí.	0
230	Pasamos por ti.	1
231	Yo puedo ir.	0
232	Las sembramos aquí.	1
233	Voy a echar una siesta.	1
234	Para qué.	0
235	Hace buen tiempo.	6

TABLE 117 Continued

Number of Item	Item	Percentage of Students Answering Correctly	Number of Item	Item	Percentage of Students Answering Correctly
236	Hace calor.	16	252	Dos por dos es cuatro.	8
237	Hay postre.	13	253	Hay leche para María.	1
238	Número cien (ciento).	46	254	Número setenta.	20
239	Tú vas de compras.	5	255	Crecen a la sombra.	3
240	Un momentito (momento), Paco.	16	256	Dos menos uno es uno.	46
241	Siempre hace frío.	0	257	Vamos si hace buen tiempo.	3
242	¡Qué lástima!	13	258	Es aire fresco.	6
243	Está bien.	5	259	Vamos al otro lado.	6
244	Está al otro lado.	1	260	Lávate las manos antes de comer.	11
245	Buenos días, mamacita.	71	261	Vamos, todos.	3
246	Tengo mucha hambre.	29	262	Tengo un gato, también.	1
247	Me da lo mismo.	0	263	Hay que (es necesario).	3
248	Vamos en seguida.	0	264	Hoy es lunes.	14
249	¿Por qué?	3			
250	Está listo.	3			
251	¿Está lejos?	5			

TABLE 118

PERCENTAGE OF STUDENTS CORRECTLY ANSWERING EACH SPEAKING GRAMMAR ITEM TESTED AT THE END OF THE MLA COURSE, SHOWING RESULTS OF SCORING ON DISCRETE ELEMENTS AND ON ENTIRE UTTERANCE*.

Number of Item	Item	Description of Feature Tested	Code†	Percentage of Students Answering Correctly	
				Discrete Element	Entire Utterance
1	Paco es un niño.	Noun phrase as subject, verb "ser", noun phrase as predicate nominative	1a	75	28
2	Es la una.	Definite article plus number in reference to telling time	NSP(4)	55	38
3	Paco tiene un libro.	Noun phrase as subject, transitive verb, noun phrase as direct object	3a	23	14
4	Me gusta el campo.	Noun phrase as indirect object (pronoun), transitive verb, noun phrase as subject	4c(inv)	31	6
5	Estoy satisfecho.	Noun phrase as subject, verb "estar", predicate adjective	1d	28	14
6	(Sí.) Siéntate, Paco.	Affirmative imperative pattern: transitive verb plus noun phrase as direct object (pronoun)	I(1)	28	16

* Items are listed in the order in which they were presented to students on the final test. In scoring on discrete elements, only errors on the point being tested caused loss of credit. In scoring on the entire utterance, the utterance had to be completely free of error for the response to be marked correct. A complete listing of the elements required in each student response is presented in Table 119, p. 239.

† The coding system was designed as an aid in referring to identical features across tests in listening and speaking grammar and grammar transfer. The coding system applies to all three courses. An explanation of the system is given in a note at the end of Table 115, p. 218.

TABLE 118 continued

Number of Item	Item	Description of Feature Tested	Code	Percentage of Students Answering Correctly	
				Discrete Element	Entire Utterance
7	María está cerrando la puerta.	Noun phrase as subject, transitive verb ("estar" + present participle), noun phrase as direct object	3a(Ip)	1	0
8	Tengo el blanco.	Definite article preceding nominalized descriptive adjective	NSP(5)	8	0
9	¿Tú me pones la mesa?	Noun phrase as subject, noun phrase as indirect object (pronoun), transitive verb, noun phrase as direct object	4aa	5	3
10	(Sí.) María te llama.	Noun phrase as subject, noun phrase as direct object (pronoun), transitive verb	3aa	13	6
11	Tenemos que volver.	Noun phrase as subject (unexpressed), transitive verb, relator word, infinitive of verb	5g	11	8
12	María está arriba.	Noun phrase as subject, verb "estar", adverb	1e	13	13
13	María lo puede agarrar.	Noun phrase as subject, noun phrase as direct object (pronoun), transitive verb with transitive verb complement	5ff	6	1
14	El lápiz es verde.	Noun phrase as subject, verb "ser", predicate adjective	1b	46	29
15	Se me olvidaron las servilletas.	Noun phrase as direct object (reflexive pronoun), noun phrase as indirect object (pronoun), transitive verb, noun phrase as subject	4b(inv)	11	10

TABLE 118 continued

Number of Item	Item	Description of Feature Tested	Code†	Percentage of Students Answering Correctly	
				Discrete Element	Entire Utterance
16	Voy a buscar a Chispa.	Noun phrase as subject (un-expressed), intransitive verb, relator word, infinitive of verb	5h	14	6
17	Hay lechuga en el jardín.	Verb "hay", noun phrase as subject, adverb	6a	1	0
18	Hay que ir de compras.	Verb "hay", relator "que", infinitive of verb	6c	6	3
19	Los niños quieren jugar.	Noun phrase as subject, transitive verb with verb infinitive as complement	5f	5	3
20	Me llamo Paco.	Noun phrase as subject, noun phrase as direct object (reflexive pronoun), transitive verb with noun phrase as complement	5aa(r)	65	58
21	¿Tiene María un libro azul?	Position of descriptive adjective following noun	NSP(2)	20	0
22	No, es el cuarto de Paco.	Use of "de" to indicate possession	NSP(1)	6	3
23	No, Paco no quiere una Coca-Cola.	Negative pattern: noun phrase as subject, negative particle, transitive verb, noun phrase as direct object (in sentence following the utterance "No")	N(11)	3	1

† The coding system was designed as an aid in referring to identical features across tests in listening and speaking grammar and grammar transfer. The coding system applies to all three courses. An explanation of the system is given in a note at the end of Table 115, p. 218.

TABLE 118 continued

Number of Item	Item	Description of Feature Tested	Code	Percentage of Students Answering Correctly	
				Discrete Element	Entire Utterance
24	Paco, dámelo.	Affirmative imperative pattern: transitive verb plus noun phrase as indirect object (pronoun) and noun phrase as direct object (pronoun)	I(2)	3	1
25	No, María, no te sientes.	Negative imperative pattern: "no" plus noun phrase as direct object (pronoun) transitive verb	I(3)	0	0
26	¿Está lista María?	Interrogative pattern (yes-no question): "estar", adverb, noun phrase as subject	?(14)	20	5
27	¿Tiene Paco un gato?	Interrogative pattern (yes-no question): transitive verb, noun phrase as subject, noun phrase as direct object	?(4)	8	5
28	¿Dónde está tu cuarto?	Interrogative pattern (information question): interrogative word, intransitive verb, noun phrase as subject	?(6)	26	0
29	¿Es grande tu gato?	Interrogative pattern (yes-no question): verb "ser", predicate adjective, noun phrase as subject	?(8)	5	0
30	¿Qué tiene Paco?	Interrogative pattern (information question): interrogative word, transitive verb, noun phrase as subject	?(5)	5	1

TABLE 118 continued

Number of Item	Item[†]	Description of Feature Tested	Code[‡]	Percentage of Students Answering Correctly	
				Discrete Element	Entire Utterance
31	(Sí.) Tengo un perro.	Irregular form, verb "tener" first person singular, present tense	Mvi(4)	23	18
32	No, (son) los niños.	Agreement of plural article + plural noun	Mn(3)	6	3
33	(Sí.) Es mi libro.	Possessive adjective, first person singular with singular noun (masculine or feminine)	Ma(6)	20	11
34	(Sí.) Eres lento.	Irregular form, verb "ser", second person singular familiar, present tense	Mvi(6)	1	0
35	(Sí.) Hay postre para ti.	Second person singular familiar, pronoun object of preposition	Mp(9)	8	5
36	(María,) mira el libro.	Familiar command, regular form, "ar" verb	Mvr(18)	11	3
37	Yo agarro a Paco.	Regular form, "ar" verb, first person singular, present tense	Mvr(1)	16	3
38	(Paco,) ven acá.	Familiar command, irregular form, verb "venir"	Mvi(17)	25	16
39	(Paco) está cerrando la puerta.	Regular form verb "cerrar", present participle	Mvr'(15)	10	1
40	(No.) Es la niña.	Agreement feminine singular article + feminine singular noun	Mn(2)	29	25

[†] Items 31-60 test morphology. In each item the specific feature tested is underlined.

[‡] The coding system was designed as an aid in referring to identical features across tests in listening and speaking grammar and grammar transfer. The coding system applies to all three courses. An explanation of the system is given in a note at the end of Table 115, p. 218.

TABLE 118 continued

Number of Item	Item	Description of Feature Tested	Code	Percentage of Students Answering Correctly	
				Discrete Elements	Entire Utterance
41	(El lápiz) es amarillo.	Agreement masculine singular noun (+ verb ser) + masculine singular adjective	Ma(1)	48	18
42	(Sí.) Es tu hermana.	Possessive adjective, second person singular with singular noun (masculine or feminine)	Ma(7)	5	5
43	Tengo dos libros verdes.	Agreement masculine plural noun + adjective with "es" ending	Ma(5)	3	1
44	(No.) Las niñas están listas.	Agreement feminine plural noun (+ verb "estar") + feminine plural adjective	Ma(4)	1	0
45	(Sí.) Tenemos libros.	Regular form, verb "tener", first person plural, present tense	Mvr(8)	1	1
46	(Sí.) Te llamas Paco.	Regular form, "ar" verb, second person singular, present tense	Mvr(2)	3	1
47	(Sí.) Ve a la puerta.	Irregular form, verb "ir", familiar command	Mvi(18)	3	3
48	(No.) María agarra a Paco.	Regular form, "ar" verb, third person singular, present tense	Mvr(3)	31	20
49	(Sí.) Dame la tiza.	First person singular, indirect object pronoun (masculine or feminine)	Mp(1)	6	5
50	(No.) María está arriba.	Irregular form, verb "estar", third person singular, present tense	Mvi(12)	28	20
51	(No.) (Miguelito) se cayó.	Regular form, verb "caer", preterite tense, third person singular	Mvr'(17)	40	36

TABLE 118 continued

Number of Item	Item†	Description of Feature Tested	Code≠	Percentage of Students Answering Correctly	
				Discrete Element	Entire Utterance
52	(Niños,) miren el libro.	Plural command, regular form, "ar" verb	Mvr(19)	5	1
53	(Paco,) pon la televisión.	Familiar command, irregular form, verb "poner"	Mvi(20)	18	18
54	(La pelota) es roja.	Agreement feminine singular noun (+ verb "ser") + feminine singular adjective	Ma(3)	14	6
55	(Niños,) pónganse los abrigos.	Plural command, irregular form, verb "poner" with reflexive pronoun	Mvi(21)	5	3
56	(Sí.) Voy al parque.	Irregular form, verb "ir", first person singular	Mvi(1)	5	0
57	(Paco,) siéntate.	Familiar command, irregular form, verb "sentar"	Mvi(22)	43	38
58	(Sí.) Quiero verlas.	Third person feminine plural direct object pronoun	Mp(4)	0	0
59	(Sí.) Dale la pelota.	Third person singular (masculine or feminine) indirect object pronoun	Mp(6)	36	20
60	No, tráela tú, (Paco.)	Third person feminine singular direct object pronoun	Mp(5)	10	6

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† Items 31-60 test morphology. In each item the specific feature tested is underlined.

≠ The coding system was designed as an aid in referring to identical features across tests in listening and speaking grammar and grammar transfer. The coding system applies to all three courses. An explanation of the system is given in a note at the end of Table 115, p. 218.

TABLE 119

LIST OF REQUIRED ELEMENTS IN A CORRECT RESPONSE TO EACH ITEM IN THE MLA SPEAKING GRAMMAR TEST*

Number of Item	Code	Correct Response	
		Scoring Entire Utterance	Scoring Discrete Element
1	1a	(Paco) es un niño.	a. $\overset{1}{\text{Es}}$ + $(\overset{2}{\text{ND}})$ + $\overset{3}{\text{niño}}$ (perro)
			b.† Proper^{1}name + $\overset{2}{\text{es}}$ + $(\overset{3}{\text{ND}})$ + noun, except proper name
2	NSP(4)	(Es) la una.	(Es) + definite article + una (dos)
3	3a	(Paco) tiene un libro.	a. (Proper^{1}name) + $\overset{2}{\text{tiene}}$ + $(\overset{3}{\text{ND}})$ + $\overset{4}{\text{noun}}$, except proper name
			b. (Proper^{1}name) + transitive^{2}verb + $(\overset{3}{\text{ND}})$ + $\overset{4}{\text{libro}}$ (lápiz)
4	4c(inv)	(A mí) me gusta el campo.	a. $\overset{1}{\text{me}}$ + $\overset{2}{\text{gusta}}$ + $(\overset{3}{\text{ND}})$ + noun
			b. Indirect $\overset{1}{\text{object}}$ pronoun + $\overset{2}{\text{gusta}}$ + $(\overset{3}{\text{ND}})$ + $\overset{4}{\text{campo}}$
5	1d	(Yo) estoy satisfecho.	$(\overset{1}{\text{Yo}})$ + $\overset{2}{\text{estoy}}$ + $\overset{3}{\text{adjective}}$, appropriate with estar
6	I(1)	(Sí.) Siéntate, (Paco.)	a. (Sí) + sienta + reflexive pronoun
			b. (Sí) + verb + te

* A detailed description of the procedures used in scoring is presented in Chapter 4 of this report.

† Generally, there was more than one correct response. An alternative correct response is indicated by b.

TABLE 119 continued

Number of Item	Code	Correct Response	
		Scoring Entire Utterance	Scoring Discrete Element
7	3a(IP)	(María) está cerrando la puerta.	a. (Proper^{1}name) + está^{2} + cerrando^{3} (abriendo) + (ND^{4}) + noun^{5} as direct object b. (Proper^{1}name) + está^{2} + present^{3}participle + (ND^{4}) + puerta^{5}
8	NSP(5)	(Yo) tengo el blanco.	a. El + descriptive adjective b. Definite article + blanco (azul)
9	4aa	¿(Tú) me pones la mesa?	a. (Subject^{1}pronoun) + me^{2} + pones^{3} + (ND^{4}) + noun^{5}, except proper name b. (Subject^{1}pronoun) + me^{2} + transitive^{3}verb + (ND^{4}) + mesa^{5} c. (Subject^{1}pronoun) + indirect object^{2} pronoun + pones^{3} + (ND^{4}) + mesa^{5}
10	3aa	(Sí.) (María*) te llama.	a. (Sí^{1}) + (proper^{2*}name) + te^{3} + transitive^{4}verb b. (Sí^{1}) + (proper^{2*}name) + object^{3}pronoun + llama^{4} c. (Sí^{1}) + (ND^{2}) + noun^{3} + te^{4} + llama^{5}

* Proper name may appear at end of sentence instead of beginning .

TABLE 119 continued

Number of Item	Code	Correct Response	
		Scoring Entire Utterance	Scoring Discrete Element
11	5g	(Nosotros) tenemos que volver.	(Subject^{1}pronoun) + $\overset{2}{\text{tenemos}}$ + $\overset{3}{\text{que}}$ + $\overset{4}{\text{infinitive}}$
12	le	(María) está arriba.	a. (Proper^{1}name) + $\overset{2}{\text{está}}$ + $\overset{3}{\text{arriba}}$
			b. (Proper^{1}name) + $\overset{2}{\text{está}}$ + $\overset{3}{\text{en}}$ + $\overset{4}{\text{(ND)}}$ + $\overset{5}{\text{sala}}$
13	5ff	María* lo puede agarrar.	a. (Proper^{1*}name) + $\overset{2\dagger}{\text{lo}}$ + $\overset{3}{\text{puede}}$ + transitive $\overset{4}{\text{verb}}$ infinitive + (^{5†})
			b. (Proper^{1*}name) + $\overset{2\dagger}{\text{lo}}$ + intransitive $\overset{3}{\text{verb}}$ requiring complement + $\overset{4\neq}{\text{agarrar}}$ + (^{5†})
			c. (Proper^{1*}name) + object^{2†}pronoun + $\overset{3}{\text{puede}}$ + $\overset{4\neq}{\text{agarrar}}$ + (^{5†})
14	lb	(El lápiz) es verde.	a. $\overset{1}{\text{Es}}$ + $\overset{2}{\text{verde}}$ (azul) + (ND $\overset{3}{+}$ lápiz)
			b. $\overset{1}{\text{(ND)}}$ + $\overset{2}{\text{lápiz}}$ + $\overset{3}{\text{es}}$ + descriptive^{4}adjective
			c. $\overset{1}{\text{(ND)}}$ + $\overset{2}{\text{noun}}$ + $\overset{3}{\text{es}}$ + $\overset{4}{\text{verde}}$ (azul)

* Proper name may occur at end of sentence instead of slot 1.

† Lo (object pronoun) must occur in slot 2 or slot 5, but not in both slots.

≠ Only infinitive is acceptable.

TABLE 119 continued

Number of Item	Code	Correct Response	
		Scoring Entire Utterance	Scoring Discrete Element
15	4b(inv)	Se me olvidaron las servilletas.	a. $\overset{1}{\text{Se}}$ + $\overset{2}{\text{me}}$ + $\overset{3}{\text{olvidaron}}$ + $\overset{4}{\text{(ND)}}$ + $\overset{5}{\text{noun}}$, except proper name
			b. $\overset{1}{\text{Se}}$ + $\overset{2}{\text{me}}$ + $\overset{3}{\text{transitive verb}}$ + $\overset{4}{\text{(ND)}}$ + $\overset{5}{\text{servilletas}}$ (sandwiches)
			c. $\overset{1}{\text{Se}}$ + $\overset{2}{\text{object pronoun}}$ + $\overset{3}{\text{olvidaron}}$ + $\overset{4}{\text{(ND)}}$ + $\overset{5}{\text{servilletas}}$
16	5h	(Yo) voy a buscar a Chispa.	a. $\overset{1}{\text{(Yo)}}$ + $\overset{2}{\text{voy}}$ + $\overset{3}{\text{a}}$ + $\overset{4}{\text{infinitive}}$ + $\overset{5}{\text{(relator word)}}$ + $\overset{6}{\text{Chispa}}$
			b. $\overset{1}{\text{(Yo)}}$ + $\overset{2}{\text{intransitive verb}}$ + $\overset{3}{\text{appropriate relator word}}$ + $\overset{4*}{\text{buscar}}$ + $\overset{5}{\text{(relator word)}}$ + $\overset{6}{\text{Chispa}}$
17	6a	Hay lechuga (en el jardín).	a. $\overset{1}{\text{Hay}}$ + $\overset{2}{\text{(ND)}}$ + $\overset{3}{\text{noun}}$, except jardín or proper name + $\overset{4\dagger}{\text{en}}$ + $\overset{5}{\text{(ND)}}$ + $\overset{6}{\text{jardín}}$
			b. $\overset{1}{\text{Hay}}$ + $\overset{2}{\text{(ND)}}$ + $\overset{3}{\text{lechuga (zanahorías)}}$ + $\overset{4\dagger}{\text{preposition}}$ + $\overset{5}{\text{(ND)}}$ + $\overset{6}{\text{noun}}$ except lechuga or zanahorías
18	6c	Hay que ir de compras.	$\overset{1}{\text{Hay}}$ + $\overset{2}{\text{que}}$ + $\overset{3}{\text{infinitive}}$

* Only infinitive is acceptable.

† Prepositional phrase may come at beginning of sentence instead of at the end.

TABLE 119 continued

Number of Item	Code	Correct Response	
		Scoring Entire Utterance	Scoring Discrete Element
19	5f	(Los niños) quieren jugar.	a. $\overset{1}{\text{(ND)}}$ + $\overset{2}{\text{(niños)}}$ + $\overset{3}{\text{quieren}}$ + $\overset{4}{\text{infinitive}}$ b. $\overset{1}{\text{(ND)}}$ + $\overset{2}{\text{(niños)}}$ + $\overset{3}{\text{verb}}$ requiring complement + $\overset{4*}{\text{jugar}}$ (comer) c. $\overset{1}{\text{(ND)}}$ + $\overset{2}{\text{noun}}$ + $\overset{3}{\text{quieren}}$ + $\overset{4*}{\text{jugar}}$ (comer)
20	5aa(r)	(Yo) me llamo Paco.	Any reflexive $\overset{1}{\text{combination}}$ of llamarse, except te llamas + $\overset{2}{\text{proper name}}$
21	NSP(2)	¿Tiene María un libro azul?	a. libro + descriptive adjective b. noun, except proper name + azul
22	NSP(1)	(No.) (Este) es (el cuarto) de Paco.	de + proper name
23	N(11)	(No.) (Paco) no quiere una Coca-Cola.	$\overset{1}{\text{(No)}}$ + $\overset{2}{\text{(proper name)}}$ + $\overset{3}{\text{no}}$ + $\overset{4}{\text{verb}}$, except es + (anything $\overset{5}{\text{except}}$ "no")

* Only infinitive is acceptable.

TABLE 119 continued

Number of Item	Code	Correct Response	
		Scoring Entire Utterance	Scoring Discrete Element
24	I(2)	(Paco,*) dámelo.	a. (Proper^{1*}name) + $\overset{2}{\text{dá}}$ + $\overset{3}{\text{me}}$ + direct $\overset{4}{\text{object}}$ pronoun b. (Proper^{1*}name) + $\overset{2}{\text{dá}}$ + indirect object $\overset{3}{\text{pronoun}}$ + $\overset{4}{\text{lo}}$ c. (Proper^{1*}name) + transitive^{2}verb + $\overset{3}{\text{me}}$ + $\overset{4}{\text{lo}}$
25	I(3)	(No.) (María,†) no te sientes.	a. ($\overset{1}{\text{No}}$) + (proper^{2†}name) + $\overset{3}{\text{no}}$ + reflexive^{4}pronoun + $\overset{5}{\text{sientes}}$ b. ($\overset{1}{\text{No}}$) + (proper^{2†}name) + $\overset{3}{\text{no}}$ + $\overset{4}{\text{te}}$ + transitive^{5}verb
26	?(14)	¿Está María† lista?	a. $\overset{1}{\text{Está}}$ + proper^{2†}name + $\overset{3}{\text{adjective}}$ appropriate with estar b. Intransitive^{1}verb + proper^{2†}name + $\overset{3}{\text{lista}}$
27	?(4)	¿Tiene Paco† un gato?	a. $\overset{1}{\text{Tiene}}$ + proper^{2†}name + ($\overset{3}{\text{ND}}$) + $\overset{4}{\text{noun}}$ as direct object b. Transitive^{1}verb + proper^{2†}name + ($\overset{3}{\text{ND}}$) + $\overset{4}{\text{gato}}$
28	?(6)	¿(Paco,‡) dónde está tu cuarto?	a. $\overset{1}{\text{Dónde}}$ + $\overset{2}{\text{está}}$ + ($\overset{3}{\text{ND}}$) + $\overset{4}{\text{noun}}$, except proper name b. $\overset{1}{\text{Dónde}}$ + $\overset{2}{\text{verb}}$ + ($\overset{3}{\text{ND}}$) + $\overset{4}{\text{cuarto}}$ c. Interrogative^{1}word + $\overset{2}{\text{está}}$ + ($\overset{3}{\text{ND}}$) + $\overset{4}{\text{cuarto}}$

* Proper name may appear at end of sentence instead of at the beginning.
† Proper name may appear at end of the sentence instead of in slot 2.
‡ Paco may appear at end of sentence instead of beginning.

TABLE 119 continued

Number of Item	Code	Correct Response	
		Scoring Entire Utterance	Scoring Discrete Element
29	?(8)	(Sí.) ¿Es grande tu gato?	a. ($\overset{1}{\text{Sí}}$) + $\overset{2}{\text{es}}$ + $\overset{3}{\text{grande}}$ + ($\overset{4}{\text{ND}}$) + $\overset{5}{\text{noun}}$
			b. ($\overset{1}{\text{Sí}}$) + $\overset{2}{\text{es}}$ + descriptive^{3}adjective + ($\overset{4}{\text{ND}}$) + $\overset{5}{\text{gato}}$ (perro)
30	?(5)	¿Qué tiene Paco?	a. $\overset{1}{\text{Qué}}$ + transitive^{2}verb + proper^{3}name
			b. Interrogative^{1}word + $\overset{2}{\text{tiene}}$ + proper^{3}name
31	Mvi(4)	(Sí.) Tengo un perro.	$\underline{\text{tengo}}$
32	Mn(3)	No, (son) los niños.	Lo$\underline{\text{s}}$ niño$\underline{\text{s}}$ (muchacho$\underline{\text{s}}$)
33	Ma(6)	(Sí.) Es mi libro.	$\underline{\text{mi}}$
34	Mvi(6)	(Sí.) Eres lento.	$\underline{\text{eres}}$
35	Mp(9)	(Sí.) Hay postre para ti.	$\underline{\text{ti}}$
36	Mvr(18)	(María,) mira el libro.	mir$\underline{\text{a}}$
37	Mvr(1)	Yo agarro a Paco.	agarr$\underline{\text{o}}$
38	Mvi(17)	(Paco,) ven acá.	$\underline{\text{ven}}$
39	Mvr'(15)	(Paco) está cerrando la puerta.	cerr$\underline{\text{ando}}$
40	Mn(2)	(No.) Es la niña.	$\underline{\text{la}}$ (un$\underline{\text{a}}$) + niñ$\underline{\text{a}}$ (muchach$\underline{\text{a}}$)

TABLE 119 continued

Number of Item	Code	Correct Response	
		Scoring Entire Utterance	Scoring Discrete Element
41	Ma(1)	(El lápiz) es amarillo.	(*El*) + (masculine noun) + amarill*o*
42	Ma(7)	(Sí.) Es tu hermana.	*tu*
43	Ma(5)	Tengo dos libros verdes.	libro*s* verd*es*
44	Ma(4)	(No.) Las niñas están listas.	niñ*as* list*as*
45	Mvr(8)	(Sí.) Tenemos libros.	ten*emos*
46	Mvr(2)	(Sí.) Te llamas Paco.	te llam*as*
47	Mvi(18)	(Sí.) Ve a la puerta.	*ve*
48	Mvr(3)	(No.) María agarra a Paco.	agarr*a*
49	Mp(1)	(Sí.) Da*me* la tiza.	da*me*
50	Mvi(12)	(No.) María está arriba.	*está*
51	Mvr'(17)	(No.) (Miguelito) se cayó.	*cayó*
52	Mvr(19)	(Niños,) miren el libro.	mir*en*
53	Mvi(20)	(Paco,) pon la televisión.	*pon*

TABLE 119 continued

Number of Item	Code	Correct Response	
		Scoring Entire Utterance	Scoring Discrete Element
54	Ma(3)	(La pelota) es roja.	(la) + (feminine noun) + roja
55	Mvi(21)	(Niños,) pónganse los abrigos.	pónganse
56	Mvi(1)	(Sí.) Voy al parque.	voy
57	Mvi(22)	(Paco,) siéntate.	siéntate
58	Mp(4)	(Sí.) Quiero verlas.	verlas
59	Mp(6)	(Sí.) Dale la pelota.	dale
60	Mp(5)	No, tráela tú, (Paco.)	tráela

TABLE 120

PERCENTAGE OF STUDENTS CORRECTLY ANSWERING EACH SPEAKING GRAMMAR TRANSFER ITEM TESTED AT THE END OF THE MLA COURSE, SHOWING RESULTS OF SCORING ON DISCRETE ELEMENTS AND ON ENTIRE UTTERANCE*

Number of Item	Item	Description of Feature Tested	Code†	Percentage of Students Answering Correctly	
				Discrete Element	Entire Utterance
1	Paco es un vaquero.	Noun phrase as subject, verb "ser", noun phrase as predicate nominative	1a	43	10
2	La niña tiene tres gatos.	Noun phrase as subject, transitive verb, noun phrase as direct object	3a	20	14
3	Yo estoy abriendo la ventana.	Noun phrase as subject, transitive verb (estar + present participle), noun phrase as direct object	3a(IP)	5	1
4	La tiza es verde.	Noun phrase as subject, verb "ser", predicate adjective	1b	68	58
5	Sí, me gusta el parque.	Noun phrase as indirect object (pronoun), transitive verb, noun phrase as subject	4c(inv)	13	6
6	No, Paco está satisfecho.	Noun phrase as subject, verb "estar", predicate adjective	1d	3	3
7	María está fuera.	Noun phrase as subject, verb "estar", adverb	1e	3	3

* Items are listed in the order in which they were presented to students on the final test. In scoring on discrete elements, only errors on the point being tested caused loss of credit. In scoring on the entire utterance, the utterance had to be completely free of error for the response to be marked correct. A complete listing of the elements required in each student response is presented in Table 121 , p. 252.

† The coding system was designed as an aid in referring to identical features across tests in listening and speaking grammar and grammar transfer. The coding system applies to all three courses. An explanation of the system is given in a note at the end of Table 115, p. 218.

TABLE 120 continued

Number of Item	Item	Description of Feature Tested	Code	Percentage of Students Answering Correctly	
				Discrete Element	Entire Utterance
8	Sí, y te llama.	Noun phrase as subject, noun phrase as direct object (pronoun), transitive verb	3aa	3	1
9	Sí, te llamas Paco.	Noun phrase as subject, noun phrase as direct object (reflexive pronoun): transitive verb with noun phrase as complement	5aa(R)	11	3
10	¿Tú me pones la mesa?	Noun phrase as subject, pronoun as indirect object, transitive verb, noun phrase as direct object	4aa	0	0
11	No, tienen que comer.	Noun phrase as subject (unexpressed) intransitive verb, relator word, infinitive of verb	5g	0	0
12	Yo lo puedo agarrar.	Noun phrase as subject, noun phrase as direct object (pronoun), transitive verb with verb complement	5ff	0	0
13	No, quiero comer.	Noun phrase as subject, transitive verb requiring complement, infinitive of verb	5f	0	0
14	Paco, dámela.	Affirmative imperative pattern: transitive verb plus noun phrase as indirect object (pronoun) and noun phrase as direct object (pronoun)	I(2)	8	5
15	¡Ay! Se me olvidaron las salchichas.	Noun phrase as direct object (reflexive pronoun), noun phrase as indirect object (pronoun), transitive verb, noun phrase as subject	4b(inv)	10	6

TABLE 120 continued

Number of Item	Item	Description of Feature Tested	Code†	Percentage of Students Answering Correctly	
				Discrete Element	Entire Utterance
16	No, vamos a jugar.	Noun phrase as subject (un-expressed), intransitive verb, relator word, infinitive of verb	5h	5	3
17	Tengo la roja.	Definite article preceding nominalized descriptive adjective	NSP(5)	6	1
18	No, Paco no está en casa.	Negative pattern: noun phrase as subject, negative particle, intransitive verb, adverb (in sentence following the utterance "no")	N(11)	1	1
19	¿Va María al picnic hoy?	Interrogative pattern (yes-no), intransitive verb, noun phrase as subject, adverb	?(10)	1	0
20	Hay un lápiz en la mesa.	Verb "hay", noun phrase as subject, adverb	6a	3	1
21	¿Dónde están las salchichas?	Interrogative pattern (information question): interrogative word, intransitive verb, noun phrase as subject	?(6)	13	0
22	¿Tiene Paco un perro también?	Interrogative pattern (yes-no question): transitive verb, noun phrase as subject, noun phrase as direct object	?(4)	1	0
23	Hay que buscar a Chispa.	Verb "hay", relator "que", infinitive of verb	6c	0	0

† The coding system was designed as an aid in referring to identical features across tests in listening and speaking grammar and grammar transfer. The coding system applies to all three courses. An explanation of the system is given in a note at the end of Table 115, p. 218.

TABLE 120 continued

Number of Item	Item	Description of Feature Tested	Code	Percentage of Students Answering Correctly	
				Discrete Element	Entire Utterance
24	No, es el libro de María.	Use of "de" to indicate possession	NSP(1)	1	0
25	¿Es roja la tiza?	Interrogative pattern (yes-no question): verb "ser", predicate adjective, noun phrase as subject	?(8)	6	1
26	Paco tiene un perro grande.	Position of descriptive adjective following noun	NSP(2)	33	1
27	Sí, Paco, levántate.	Affirmative imperative pattern: transitive verb plus noun phrase as direct object (pronoun)	I(1)	25	25
28	Son las tres.	Definite article plus number in reference to telling time	NSP(4)	20	11
29	María, no te levantes.	Negative imperative pattern: "no" plus noun phrase as direct object (pronoun), transitive verb	I(3)	0	0
30	¿Qué quiere Paco?	Interrogative pattern (information question): interrogative word, transitive verb, noun phrase as subject	?(5)	3	1

TABLE 121

LIST OF REQUIRED ELEMENTS IN A CORRECT RESPONSE
TO EACH ITEM IN THE MLA SPEAKING GRAMMAR TRANSFER TEST*

Number of Item	Code	Correct Response	
		Scoring Entire Utterance	Scoring Discrete Element
1	1a	(Paco) (es) un vaquero.	a. $\overset{1}{\text{Es}}$ + $(\overset{2}{\text{ND}})$ + $\overset{3}{\text{vaquero}}$
			b. Proper $\overset{1}{\text{name}}$ + $\overset{2}{\text{es}}$ + $(\overset{3}{\text{ND}})$ + $\overset{4}{\text{noun}}$, except proper name
2	3a	(La niña) (tiene) tres gatos.	a. $(\overset{1}{\text{ND}})$ + $(\overset{2}{\text{niña}})$ + $\overset{3}{\text{tiene}}$ + $(\overset{4}{\text{number}})$ + $\overset{5}{\text{noun}}$, except proper name
			b. $(\overset{1}{\text{ND}})$ + $(\overset{2}{\text{niña}})$ + transitive $\overset{3}{\text{verb}}$ + $(\overset{4}{\text{number}})$ + $\overset{5}{\text{gatos}}$
			c. $(\overset{1}{\text{ND}})$ + $\overset{2}{\text{noun}}$, except gato + $\overset{3}{\text{tiene}}$ + $(\overset{4}{\text{number}})$ + $\overset{5}{\text{gatos}}$
3	3a(IP)	(Yo) estoy abriendo la ventana.	a. (Subject $\overset{1}{\text{pronoun}}$) + $\overset{2}{\text{estoy}}$ + $\overset{3}{\text{abriendo}}$ + $(\overset{4}{\text{ND}})$ + $\overset{5}{\text{noun}}$ as direct object
			b. (Subject $\overset{1}{\text{pronoun}}$) + $\overset{2}{\text{estoy}}$ + present $\overset{3}{\text{participle}}$ + $(\overset{4}{\text{ND}})$ + $\overset{5}{\text{ventana}}$

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* A detailed description of the procedures used in scoring is presented in Chapter 4 of this report.

† Generally, there was more than one correct response. An alternative correct response is indicated by b.

TABLE 121 continued

Number of Item	Code	Correct Response	
		Scoring Entire Utterance	Scoring Discrete Element
4	1b	(La tiza) (es) verde.	a. $\overset{1}{\text{es}}$ + $\overset{2}{\text{verde}}$ (any color) + (ND + $\overset{3}{\text{noun}}$) b. ($\overset{1}{\text{ND}}$) + $\overset{2}{\text{tiza}}$ + $\overset{3}{\text{es}}$ + descriptive $\overset{4}{\text{adjective}}$ c. ($\overset{1}{\text{ND}}$) + $\overset{2}{\text{noun}}$ + $\overset{3}{\text{es}}$ + $\overset{4}{\text{verde}}$
5	4c(inv)	(Sí.) (A mí) me gusta (el parque).	a. ($\overset{1}{\text{Sí}}$) + $\overset{2}{\text{me}}$ + $\overset{3}{\text{gusta}}$ + ($\overset{4}{\text{ND}}$) + $\overset{5}{\text{noun}}$ b. ($\overset{1}{\text{Sí}}$) + indirect object $\overset{2}{\text{pronoun}}$ + $\overset{3}{\text{gusta}}$ + ($\overset{4}{\text{ND}}$) + $\overset{5}{\text{parque}}$
6	1d	No. (Paco) está satisfecho.	($\overset{1}{\text{No}}$) + (proper $\overset{2}{\text{name}}$) + $\overset{3}{\text{está}}$ + $\overset{4}{\text{adjective}}$ appropriate with estar
7	1e	(María) está fuera.	a. (Proper $\overset{1}{\text{name}}$) + $\overset{2}{\text{está}}$ + $\overset{3}{\text{adverb}}$ b. ($\overset{1}{\text{ND}}$) + $\overset{2}{\text{noun}}$ + $\overset{3}{\text{está}}$ + $\overset{4}{\text{fuera}}$
8	3aa	Sí, y te llama.	a. ($\overset{1}{\text{Sí}}$) + (relator $\overset{2}{\text{word}}$) + (proper name or $\overset{3}{\text{subject}}$ pronoun) + $\overset{4}{\text{te}}$ + transitive $\overset{5}{\text{verb}}$ b. ($\overset{1}{\text{Sí}}$) + (relator $\overset{2}{\text{word}}$) + (proper name or $\overset{3}{\text{subject}}$ pronoun) + object $\overset{4}{\text{pronoun}}$ + $\overset{5}{\text{llama}}$

TABLE 121 continued

Number of Item	Code	Correct Response	
		Scoring Entire Utterance	Scoring Discrete Element
9	5aa(R)	Sí, (tú) (te llamas) Paco.	a.* $(\overset{1}{\text{Sí}})$ + subject^{2}pronoun + reflexive $\overset{3}{\text{pronoun}}$ which agrees with subject + any inflected $\overset{4}{\text{form}}$ of llamar b.* $(\overset{1}{\text{Sí}})$ + reflexive direct^{2}object + inflected $\overset{3}{\text{form}}$ of llamar agreeing with direct object
10	4aa	¿(Tú) me pones la mesa?	a. (Subject^{1}pronoun) + $\overset{2}{\text{me}}$ + $\overset{3}{\text{pones}}$ + $(\overset{4}{\text{ND}})$ + $\overset{5}{\text{noun}}$, except proper name b. (Subject^{1}pronoun) + $\overset{2}{\text{me}}$ + transitive^{3}verb + $(\overset{4}{\text{ND}})$ + $\overset{5}{\text{mesa}}$ c. (Subject^{1}pronoun) + indirect object^{2}pronoun + $\overset{3}{\text{pones}}$ + $(\overset{4}{\text{ND}})$ + $\overset{5}{\text{mesa}}$
11	5g	No. (Paco y María) tienen que comer.	$(\overset{1}{\text{No}})$ + (proper^{2}name) + $\overset{3}{\text{tienen}}$ + $\overset{4}{\text{que}}$ + $\overset{5}{\text{infinitive}}$

* The combination me llamo is incorrect.

TABLE 121 continued

Number of Item	Code	Correct Response		
		Scoring Entire Utterance		Scoring Discrete Element
12	5ff	(Yo) lo puedo agarrar.	a.	(Subject^{1}pronoun) + object^{2*}pronoun + ^{3}puedo + ^{4ƒ}agarrar + (^{5*})
			b.	(Subject^{1}pronoun) + ^{2*}lo + ^{3}puedo + transitive^{4}verb infinitive + (^{5*})
			c.	(Subject^{1}pronoun) + ^{2*}lo + ^{3}verb requiring complement + ^{4ƒ}agarrar + (^{5*})
13	5f	(No.) (Yo) quiero comer.	a.	(^{1}No) + (subject^{2}pronoun) + ^{3}quiero + ^{4}infinitive
			b.	(^{1}No) + (subject^{2}pronoun) + ^{3}verb requiring a complement + ^{4ƒ}comer
14	I(2)	(Paco,≠) dámela.	a.	(Proper$^{1≠}$name) + ^{2}da + ^{3}me + direct object^{4}pronoun
			b.	(Proper$^{1≠}$name) + ^{2}da + indirect object^{3}pronoun + ^{4}la
			c.	(Proper$^{1≠}$name) + transitive^{2}verb + ^{3}me + ^{4}la

* Lo (object pronoun) must occur in slot 2 or 5, but not in both.
ƒ Only the infinitive is acceptable.
≠ Proper name may appear at end of sentence instead of at the beginning.

TABLE 121 continued

Number of Item	Code	Correct Response	
		Scoring Entire Utterance	Scoring Discrete Element
15	4b(inv)	(¡Ay!) Se me olvidaron las salchichas.	a. ($\overset{1}{\text{Exclamation}}$) + $\overset{2}{\text{se}}$ + $\overset{3}{\text{me}}$ + $\overset{4}{\text{olvidaron}}$ + ($\overset{5}{\text{ND}}$) + $\overset{6}{\text{noun}}$, except proper name b. ($\overset{1}{\text{Exclamation}}$) + $\overset{2}{\text{se}}$ + $\overset{3}{\text{me}}$ + transitive^{4}verb + ($\overset{5}{\text{ND}}$) + $\overset{6}{\text{salchichas}}$ c. ($\overset{1}{\text{Exclamation}}$) + $\overset{2}{\text{se}}$ + indirect object^{3}pronoun + $\overset{4}{\text{olvidaron}}$ + ($\overset{5}{\text{ND}}$) + $\overset{6}{\text{salchichas}}$
16	5h	No. (Nosotros) vamos a jugar.	a. ($\overset{1}{\text{No}}$) + (subject^{2}pronoun) + $\overset{3}{\text{vamos}}$ + $\overset{4}{\text{a}}$ + $\overset{5}{\text{infinitive}}$ b. ($\overset{1}{\text{No}}$) + (subject^{2}pronoun) + intransitive^{3}verb + $\overset{4}{\text{relator}}$ word + $\overset{5*}{\text{jugar}}$
17	NSP(5)	(Yo) (tengo) la roja.	a. Definite article + roja (blanca) b. la + descriptive adjective
18	N(11)	(No.) (Paco) no está (en casa).	($\overset{1}{\text{No}}$) + (proper^{2}name) + $\overset{3}{\text{no}}$ + $\overset{4}{\text{verb}}$, except es + (anything^{5}except "no") + ($\overset{6}{\text{noun}}$)

* Only infinitive is acceptable.

† Proper name may occur at end of sentence instead of slot 2.

TABLE 121 continued

Number of Item	Code	Correct Response	
		Scoring Entire Utterance	Scoring Discrete Element
19	?(10)	¿Va (María*) al picnic (hoy)?	a. $\overset{1}{\text{Va}}$ + $\overset{2*}{\text{proper name}}$ + $\overset{3}{\text{prepositional phrase}}$ (adverb)
			b. $\overset{1}{\text{Verb}}$ + $\overset{2*}{\text{proper name}}$ + $\overset{3}{\text{a}}$ + $\overset{4}{\text{(ND)}}$ + $\overset{5}{\text{picnic}}$
			c. $\overset{1}{\text{Va}}$ + $\overset{2*}{\text{(proper name)}}$ + $\overset{3}{\text{preposition}}$ + $\overset{4}{\text{(ND)}}$ + $\overset{5}{\text{picnic}}$
20	6a	Hay un lápiz en la mesa.	a. $\overset{1}{\text{Hay}}$ + $\overset{2}{\text{(ND)}}$ + $\overset{3}{\text{lápiz}}$ + $\overset{4}{\text{prepositional phrase}}$ (adverb of location)
			b. $\overset{1}{\text{Hay}}$ + $\overset{2}{\text{(ND)}}$ + $\overset{3}{\text{noun}}$ + $\overset{4}{\text{en}}$ + $\overset{5}{\text{(ND)}}$ + $\overset{6}{\text{mesa}}$
21	?(6)	¿Dónde están (las salchichas)?	a. $\overset{1}{\text{Dónde}}$ + $\overset{2}{\text{están}}$ + $\overset{3}{\text{(ND)}}$ + $\overset{4}{\text{noun}}$
			b. $\overset{1}{\text{Dónde}}$ + $\overset{2}{\text{verb}}$ + $\overset{3}{\text{(ND)}}$ + $\overset{4}{\text{salchichas}}$
			c. $\overset{1}{\text{Interrogative word}}$ + $\overset{2}{\text{están}}$ + $\overset{3}{\text{(ND)}}$ + $\overset{4}{\text{salchichas}}$
22	?(4)	¿Tiene (Paco*) un perro (también)?	a. $\overset{1}{\text{Tiene}}$ + $\overset{2*}{\text{(proper name)}}$ + $\overset{3}{\text{(ND)}}$ + $\overset{4}{\text{noun}}$ as direct object, except proper name + $\overset{5}{\text{(también)}}$
			b. $\overset{1}{\text{Transitive verb}}$ + $\overset{2*}{\text{(proper name)}}$ + $\overset{3}{\text{(ND)}}$ + $\overset{4}{\text{perro}}$ (gato) + $\overset{5}{\text{(también)}}$

* Proper name may appear at end of sentence instead of in slot 2.

TABLE 121 continued

Number of Item	Code	Correct Response	
		Scoring Entire Utterance	Scoring Discrete Element
23	6c	No. Hay que buscar a Chispa.	($\overset{1}{\text{No}}$) + $\overset{2}{\text{hay}}$ + $\overset{3}{\text{que}}$ + $\overset{4}{\text{infinitive}}$ + ($\overset{5}{\text{a}}$) + ($\overset{6}{\text{Chispa}}$)
24	NSP(1)	(No.) (Este) es (el libro) de María.	de + proper name
25	?(8)	¿Es roja (la tiza)?	a. $\overset{1}{\text{Es}}$ + any^{2}color + $\overset{3}{\text{ND}}$ + $\overset{4}{\text{noun}}$
			b. $\overset{1}{\text{Es}}$ + descriptive^{2}adjective + $\overset{3}{\text{ND}}$ + $\overset{4}{\text{tiza}}$
26	NSP(2)	(Paco) (tiene) un perro grande.	a. perro + descriptive adjective
			b. noun, except proper name + grande
27	I(1)	(Sí.) (Paco,) levántate.	a. levántate + reflexive pronoun
			b. transitive verb + te
28	NSP(4)	(Son) las tres.	a. las + number, except one
			b. definite article + tres
29	I(3)	(No.) (María,*) no te levantes.	a. (Proper^{1*}name) + $\overset{2}{\text{no}}$ + $\overset{3}{\text{te}}$ + transitive^{4}verb
			b. (Proper^{1*}name) + $\overset{2}{\text{no}}$ + direct^{3}object + $\overset{4}{\text{levantes}}$
30	?(5)	¿Qué quiere (Paco)?	a. ¿$\overset{1}{\text{Qué}}$ + transitive^{2}verb + proper^{3}name?
			b. ¿Interrogative^{1}word + $\overset{2}{\text{quiere}}$ + proper^{3}name?

* Proper name may appear at end of sentence instead of at the beginning.

TABLE 122

PERCENTAGE OF STUDENTS CORRECTLY ANSWERING EACH PRONUNCIATION (MIMICRY) ITEM TESTED AT THE END OF THE MLA COURSE, GIVING DESCRIPTION OF FEATURE TESTED AND PROBABLE ERROR*

Number of Item	Feature Tested	Percentage of Students Answering Correctly	Description of Feature Tested	Stimulus Word	Probable Error
1	rr	59	A multiple trill	arriba	The English "growled" r as in arrival or arena
2	ƀ	45	Fricative or soft b	escribe	The stop or hard b as in amoeba or scribble
3	ǥ	19	Fricative or soft g	hago	The stop or hard g as in haggle or saga
4	x	77	Spanish j (or jota) (Pronounced with fairly strong friction noise)	hijos	A much softer English h, as in freehold or oho
5	ye	50	Two vowel letters (ie) pronounced in a single syllable. Siesta is two syllables: sies-ta	siesta	In English the most similar vowels are pronounced in separate syllables. Siesta would be three syllables: si-es-ta.
6	we	50	Two vowel letters (ue) pronounced in a single syllable. Luego is two syllables: lue-go	luego	In English the most similar vowels are pronounced in separate syllables. Luego would be three syllables: lu-e-go.

* The features of phonology are listed in the order in which they were presented to students on the final test. The required student response was always a brief Spanish utterance. Only the specific feature listed was evaluated.

TABLE 122 continued

Number of Item	Feature Tested	Percentage of Students Answering Correctly	Description of Feature Tested	Stimulus Word	Probable Error
7	bry	65	A sequence of three consonants: a-brien-do	abriendo	Sequence will be broken up by adding a vowel and pronouncing one more syllable: a-bri-yendo.
8	đ	60	Fricative or soft d (Should sound like the th of rather)	adelente	The stop or hard d as in Adelaide or addle.
9	l	54	Spanish bright l (Should sound a little like the l in canaddle or toddle)	canal	The English dark l as in canal or tall.
10	r	69	Spanish flapped r (Should sound a little like the t in pot O'tea and Betty)	para	The English "growled" r as in par a (hole) or berry.
11	b	69	The stop or hard b (even though spelled v should sound like the b in Ben)	ven	The English v as in vent
12	e	50	The simple or pure vowel e	por qué	The English diphthong, as in Kay or they
13	o	84	The simple or pure vowel o	no	The English diphthong, as in know or go
14	ĕ	52	The unstressed e, which retains the quality of e as in peso, even when unstressed	meses	The English obscured vowel as in meses or faces

TABLE 122 continued

Number of Item	Feature Tested	Percentage of Students Answering Correctly	Description of Feature Tested	Stimulus Word	Probable Error
15	Synalepha	41	The loss of a syllable at a word boundary when one word ends and the next begins with the same vowel sound: caza azul becomes casazul.	casa azul	Any break which preserves two sounds in two syllables
16	Vowel Reduction	69	A change of vowels between words, such that ae (in two syllables) becomes ai or even e (in one)	esa es	Any break which preserves two sounds in two syllables.
17	i	35	Spanish i (Should sound a little like the ee in seen)	invitar	The English vowel sound of inn or invitation
18	a	95	Spanish a (Should sound a little like the o in bong or bronco)	blanco	The English vowel sound of blank or bank
19	Rhythm	67	Syllables timed evenly: La semana pasada.	La semana pasada	Stressed syllables lengthened: La semana pasada.
20	Intonation of vocatives	79	Falling intonation on a vocative at the end of a sentence: Pasa, Pepe.↓	Pasa, Pepe	A sentence final vocative in English is usually pronounced with a rising intonation pattern: Come in, Peter.↑

TABLE 122 continued

Number of Item	Feature Tested	Percentage of Students Answering Correctly	Description of Feature Tested	Stimulus Word	Probable Error
21	Intonation of leave-taking	92	Pattern should drop at the end Hasta mañana	Hasta mañana	English pattern may drop only part way at the end or may rise: See you tomorrow. ↓ See you tomorrow. ↑

TABLE 123

PERCENTAGE OF STUDENTS CORRECTLY ANSWERING EACH PRONUNCIATION (CONSTRUCTED RESPONSE) ITEM TESTED AT THE END OF THE MLA COURSE, GIVING DESCRIPTION OF FEATURE TESTED AND PROBABLE ERROR*

Number of Item	Feature Tested	Percentage of Students Answering Correctly	Description of Feature Tested	Stimulus Word	Probable Error
1	rr	48	A multiple trill	perro	The English "growled" r as in parrot.
2	ƀ	56	Fricative or soft b	sábado	The stop or hard b as in sabbath or habit.
3	ǥ	28	Fricative or soft g	lechuga	The stop or hard g as in cougar or sugar.
4	x	41	Spanish j (or jota) (pronounced with fairly strong friction noise)	rojo	A much softer English h as in toehold or oho
5	ye	89	Two vowel letters (ie) (pronounced in a single syllable) siete is two syllables: sie-te	siete	In English the most similar vowels are pronounced in separate syllables. Siete would be three syllables: si-e-te
6	wi	9	Two vowel letters (ui) pronounced in a single syllable Luisa is two syllables: Lui-sa	Luisa	In English the most similar vowels are pronounced in separate syllables. Luisa would be three syllables: Lu-i-sa

* The features of phonology are listed in the order in which they were presented to students on the final test. The required student response was always a brief Spanish utterance. Only the specific feature listed was evaluated.

TABLE 123 continued

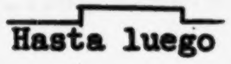
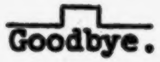
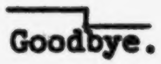
Number of Item	Feature Tested	Percentage of Students Answering Correctly	Description of Feature Tested	Stimulus Word	Probable Error
7	Intonation of leave-takings	16	Pattern should drop at the end:  Hasta luego	Hasta luego.	English pattern may drop only part way at the end or may rise:  Goodbye.  Goodbye.
8	đ	43	Fricative or soft d (Should sound like the th in another)	nada	The stop or hard d as in Adam
9	l	55	Spanish bright l (Should sound a little like the l in poodle or coddle)	azul	English dark l as in pool or call
10	r	75	Spanish flapped r (Should sound a little like the d in Ma'dee and totter)	María	English "growled" r as in Marie or tar
11	b	45	The stop or hard b (Even though spelled v should sound like the b in balm or bomb)	vamos	English v as in Vaughn
12	e	39	The simple or pure vowel e	por qué	The English diphthong as in Kay or they
13	o	46	The simple or pure vowel o	se cayó	The English diphthong as in low or woe
14	ă	17	Unstressed a, retains the quality of a as in mano, even when unstressed	muchas	The English obscured vowel as in churches or Brutus

TABLE 123 continued

Number of Item	Feature Tested	Percentage of Students Answering Correctly	Description of Feature Tested	Stimulus Word	Probable Error
15	synalepha	60	The loss of a syllable at a word boundary when one word ends and the next begins with the same vowel sound: mucha hambre becomes muchambre	mucha hambre	Any break which preserves two sounds in two syllables
16	vowel reduction	26	A change of vowels between words such that oe (in two syllables) becomes we (in one syllable)	Paco es	Any break which preserves separate vowel sounds in separate syllables
17	i	23	The Spanish i (Should sound a little like the ea in peace)	pistola	The English vowel sound of pistol or sister
18	a	97	Spanish a (Should sound a little like the o in gone or Ron)	grande	The English vowel sound of grand or class
19	Rhythm	41	Syllables timed evenly: Hasta mañana, señor.	Hasta mañana, señor.	Stressed syllables lengthened: Hasta mañana, señor.
20	Intonation of Vocative	12	Falling intonation on a vocative at the end of a sentence: Hola, Pepe.↓	Hola, Pepe.	A sentence final vocative in English is usually pronounced with a rising intonation pattern: Hello, Peter.↑

TABLE 123 continued

Number of Item	Feature Tested	Percentage of Students Answering Correctly	Description of Feature Tested	Stimulus Word	Probable Error
21	bry	26	A sequence of three consonants: a-brien-do	abriendo	Sequence will be broken up by adding a vowel and pronouncing one more syllable: a-bri-yen-do

APPENDIX B

SPA COURSE OBJECTIVES AND STUDENT PERFORMANCE DATA

Objectives from Published Course

The statement presented below is an excerpt from the SPA teacher's manual.[1]

Here, briefly, is a description of the kinds of performance the student can be expected to produce when he has completed Spanish A.

In the realm of phonology, he will respond to Spanish, spoken at natural rates of speed, with his own utterances that range in phonetic quality from good to near-native. This includes appropriate intonation, sinalefa and Spanish syllable juncture. He will be able to read aloud with little or no degradation of his aural-oral level of accuracy, and he will be able to write down what he hears at approximately the same level of accuracy as a Spanish child in the first or second grade. What mistakes he makes will be native-like errors -- an occasional omission of h, a phrase written as one word, occasional inaccuracy in the use of accent marks, etc.

In the general range of morphology and syntax, he will demonstrate an extremely high level of accuracy in number-gender agreements (generally from 90% and up), both in terms of noun-adjective-pronoun as well as subject-verb-predicate. For example, no girl student is ever likely to say "Soy alto," nor is any student likely to say "Mis hermanos son alto."

The range of structures handled by the student includes:

1) basic patterns of affirmation, negation, interrogation (including ¿Dónde?, ¿Cuándo?, ¿Quién?, etc.)

2) the morphology of the verb in the present tense (the most common "irregular" verbs, including radical changing verbs, are intensively drilled)

3) dependent infinitival constructions with querer, poder, and tener

4) the morphology and syntax of the subject and direct object pronouns (including such patterns as "El que toca la guitarra es mi hermano.")

5) patterns of the comparative involving más and menos, etc.

The issue of "vocabulary" is a tender one, since there is no real agreement on how to count lexical items. To count the infinitive of a verb as one item is misleading, if the inclusion of the infinitive implies that the student commands all the possible paradigmatic forms, including the use of the infinitive as a noun. Shall we count hermano-hermana as one item? If so, why not hombre-mujer? If tiene is listed once, what does it mean in these three sentences:

1. Tiene muchos amigos.
2. Tiene sueño.
3. Tiene que salir.

---

[1] Material in this section is quoted from A Programmed Course in Spanish, Teacher's Manual. Sapon, S.M. (Encyclopedia Britannica Films, INC., 1961). By permission of the publisher.

If "counting" is insisted upon, the writer is inclined to believe that distinguishable semantic differences be considered rather than raw lexical material. In this light, it can be said that after Spanish A the student controls a vocabulary approaching 500 items.

It is important to note that the selection of the vocabulary was made on the basis of three criteria:

1) the phonetic usefulness and appropriateness in the development of oral skill

2) the potential "productiveness" of the item in terms of its future role in developing the morphology and syntax

3) the notion of *personal application* to the student, i.e., the ability to talk about *himself* rather than about mountains and rivers, and the general notions of use in everyday speech, common situations such as telling time, etc.

Course Author's Statement Supplementing Published Course Objectives

The statement presented below was provided by the course author at the outset of Project D-177 to supplement the writing objectives in the SPA teacher's manual.

1) The ability to duplicate all the communicative skills subsumed under the section on Speaking, i.e., the generation of utterances, statements and questions, responses to questions, etc. In essence, anything the student can *say* he can also *write*.

2) The ability to put down in writing any utterance that the student can "process" in the audio-lingual mode, and to a limited extent, utterances that involve lexical items and structures with which the student has no familiarity.

The student's writing will equal native standards with the following qualifications and exceptions:

Since some respelling is used as a teaching device in the course of the program, testing at various points in the program will reveal varying degrees of dependence on the respelling. At the conclusion of Spanish A, the only deviations from conventional orthography that remain are the maintenance of the distinction between the allophones of /d/, appearing as *d* and *ð*, and the use of the omega for *ɾ* in the stimulus material. In the student's writing, however, the omega appears as a close approximation of a normal script *r*. What errors in orthography that do occur are likely to include an occasional omission of the letter *h*, the accent mark, and the appearance of the *β* to represent the letters *b* or *v* as a bilabial fricative. By the end of Unit 70 in Spanish B, the student controls fully standard orthography.

TABLE 124

PERCENTAGE OF STUDENTS CORRECTLY ANSWERING EACH LISTENING COMPREHENSION VOCABULARY ITEM TESTED AT END OF COURSE IN SPA CLASSES, SHOWING THE CONTEXT IN WHICH EACH RESPONSE WAS SOUGHT*

Number of Item	Item	Percentage of Students Answering Correctly	Number of Item	Item	Percentage of Students Answering Correctly
1	Son tres mesas.	98	15	Hay una mesa en el dormitorio.	98
2	Es su piña.	80	16	Es un pozo.	96
3	Son hermanos.	92	17	Toma café.	96
4	Es un vaso.	98	18	Es una casa española.	
5	El pez es gordo.	80	19	Sí, es mi pipa.	100
6	Es el pan.	96	20	Sí, fuma.	98
7	Hay dos cuchillos en la mesa.	80	21	Es mi vino.	96
8	Sancho come el queso.	98	22	Es la puerta.	81
9	Mi casa es grande.	93	23	Mi hermano es flaco.	98
10	Hay una percera en la mesa.	81	24	Tengo un plato.	100
11	Mi mono es gordo.	93	25	Es mi mono.	100
12	Es un nido.	98	26	Es una taza.	92
13	Salen de la casa.	81	27	Sancho entra en la cocina.	100
14	Es una cama.	96	28	Tengo mucho dinero.	93

*Vocabulary items are underlined. The Spanish utterances are listed in the order in which they were presented to students on the final test. The required student response was a brief Spanish utterance. Only the underlined words were scored.

TABLE 124 Continued

Number of Item	Item	Percentage of Students Answering Correctly	Number of Item	Item	Percentage of Students Answering Correctly
29	Es mi mamá.	100	44	Es mi niño.	96
30	Tengo un plato de sopa.	90	45	Tengo sueño.	90
31	¿Es un pino?	81	46	Son altos.	93
32	¿Es un oso?	96	47	Tengo hambre.	86
33	Tienen una muñeca.	96	48	Hay una mesa en la cocina.	96
34	Sí, duerme.	100	49	Es un mozo.	98
35	Sancho tiene una paloma.	100	50	Tomo té.	96
36	Corta el pan.	93	51	La cama es pequeña.	93
37	Es mi mano.	96	52	Mi papá es guapo.	96
38	La niña pone la taza en la mesa.	90	53	Sancho toma leche.	100
39	Es carne.	86	54	Mi mama es baja.	90
40	Es una casa.	100	55	Tengo una cama.	92
41	Tengo una cuchara.	87	56	Es mi niño.	93
42	Es mi papá.	100	57	Es otra paloma.	84
43	Tiene sed.	80	58	¿De quién es la muñeca?	42

TABLE 124 Continued

Number of Item	Item	Percentage of Students Answering Correctly	Number of Item	Item	Percentage of Students Answering Correctly
59	En la casa.	100	75	¿Qué toma su mamá?	81
60	Usted tiene un oso.	86	76	¿Cuándo come usted?	75
61	¿Cuántos niños hay en la casa?	93	77	Come porque tiene hambre.	87
62	¿Qué es?	98	78	Número cuatro.	100
63	Salgo con mi oso.	92	79	Es francés.	80
64	Número uno.	100	80	Papá y mamá.	93
65	Mi papá come.	96	81	Es de España.	100
66	Número seis.	96	82	¿Dónde come el oso?	68
67	No, pero tiene dos hermanos.	84	83	Número cinco.	100
68	Número dos.	100	84	Esta tarde no quiero comer.	86
69	Sí, es un oso.	96	85	Son dos niñas.	86
70	¿Es su cama?	93	86	Es de Francia.	98
71	¿Qué hay en la casa?	80	87	¿Por qué come usted?	80
72	Gracias.	98	88	¿En qué parte de la casa hay una mesa?	93
73	Número tres.	100	89	¿Qué hacen las niñas?	90
74	Mamá o papá.	96			

TABLE 124 Continued

Number of Item	Item	Percentage of Students Answering Correctly	Number of Item	Item	Percentage of Students Answering Correctly
90	Mi hermano sale conmigo.	81	108	Es una blusa.	100
91	Es una persona.	84	109	Quieren comer.	90
92	Tiene una carta.	74	110	Es el profesor.	98
93	Es una pipa negra.	98	111	Lee una carta.	87
94	El hombre duerme.	90	112	Es un animal.	100
95	Son dos patos.	64	113	Los hombres escriben.	93
96	Es una pera.	98	114	Es una camisa.	93
97	Lleva una camisa.	71	115	Corta el melón.	98
98	Un alumno duerme.	78	116	Es una fruta.	100
99	Hay dos pollitos en la mesa.	81	117	Prefieren bailar.	93
100	Es una pluma.	84	118	Toca muy bien.	68
101	Es un elefante.	100	119	Los pantalones son negros.	96
102	Tiene un huevo.	84	120	Tiene frío.	100
103	El oso es blanco.	90	121	Es una clase.	100
104	Es mi escuela.	96	122	La muchacha es guapa.	90
105	Lleva un abrigo.	84	123	Lleva una falda.	70
106	Escucha la música.	98	124	Es un piano.	100
107	Tiene un hijo.	81	125	Es un libro.	96

TABLE 124 Continued

Number of Item	Item	Percentage of Students Answering Correctly
126	La mujer es alta.	87
127	Son zapatos negros.	84
128	Es fuerte.	96
129	Tiene una peseta.	65
130	Es mi familia.	98
131	Toca la guitarra.	100
132	Es un gato.	98
133	Escuchamos la música.	78
134	Tiene dinero.	90
135	¿Qué hora es?	86
136	Toca la campana.	81
137	El papel es blanco.	81
138	Tiene un amigo.	93
139	¡Adiós!	100
140	Tengo medio queso.	80
141	¿Cuánto vale esa blusa?	87
142	Susana canta bien.	96
143	Número trescientos.	86
144	Usted es muy simpática.	93
145	Quiero mi abrigo.	80
146	Nuestra casa es pequeña.	74
147	Número doce.	98
148	Hay treinta minutos.	96
149	¿Quién tiene más dinero?	87
150	Sí, con mucho gusto.	70
151	Número once.	98
152	Llegamos a las ocho.	74
153	Número trece.	90
154	Tengo que escribir una carta.	86
155	Es débil.	75
156	¿Prefiere usted bailar?	90

TABLE 124 Continued

Number of Item	Item	Percentage of Students Answering Correctly
157	Hay sesenta segundos.	93
158	¿A qué hora estudia usted?	81
159	El pez es muy pequeño.	93
160	¿Qué quiere decir "alumno"?	59
161	Número setenta.	74
162	Creo que Felipe lo tiene.	70
163	Como más que ella.	48
164	Esta noche no quiero comer.	75
165	Es fácil.	80
166	¿Qué quiere comprar?	80
167	Somos hermanos.	75
168	¿De qué color es el cuchillo?	90
169	La niña tiene un oso también.	87
170	Quiero escuchar una canción.	90
171	Estudio el español.	98
172	¿Quién es este muchacho?	80
173	¿Qué dice Tomás?	71
174	Quiero cantar.	84
175	¿Cuántos son nueve menos uno?	90
176	Número cien.	87
177	No tengo bastante dinero.	81
178	No tiene prisa.	58
179	Come más que ellos.	68
180	No sé si es más alta.	53
181	¿Quiénes son?	70
182	Tiene cinco años.	86
183	Número cincuenta.	98
184	Estudio la historia.	96
185	La blusa es verde.	84

TABLE 124 Continued

Number of Item	Item	Percentage of Students Answering Correctly
186	Es necesario comer.	90
187	Número siete.	96
188	Felipe come poco.	70
189	Enseña el español.	81
190	El oso es amarillo.	96
191	Buenas tardes.	87
192	Número ocho.	100
193	De nada.	96
194	Estudio el inglés.	100
195	Número noventa.	96
196	¿Saben ustedes muchas cosas?	74
197	Número quince.	86
198	Esta mañana no quiero comer.	80
199	Número catorce.	93
200	¡Ay, perdón!	74
201	Soy más fuerte que él.	75
202	Sale de la casa temprano.	59
203	Ese plato es negro.	59
204	Número diez.	96
205	El gato no puede salir.	40
206	Número cuarenta.	98
207	¿Quiénes son estas muchachas?	78
208	Hay tres cosas en la mesa.	93
209	Número nueve.	98
210	La casa es azul.	92
211	Felipe llega tarde.	84
212	No sé si es Sancho.	75
213	Aprendemos mucho.	80
214	Está bien.	90

TABLE 125

PERCENTAGE OF STUDENTS CORRECTLY ANSWERING EACH LISTENING COMPREHENSION GRAMMAR ITEM TESTED AT THE END OF THE SPA COURSE, WITH A DESCRIPTION OF EACH FEATURE TESTED[*]

Number of Item	Item	Description of Feature Tested	Code[†]	Percentage of Students Answering Correctly
1	¿Qué es?	Irregular form, verb "ser," 3rd person singular, present tense	Mvi(7)	97
2	Tengo un oso.	Irregular form, verb "tener," 1st person singular, present tense	Mvi(4)	72
3	Son mis pipas.	Noun phrase as subject (unexpressed), verb "ser", noun phrase as predicate nominative	1a(u)	85
4	Sí, es mi mozo.	Possessive adjective, 1st person singular with singular noun (masc. or fem.)	Ma(6)	100
5	Es la muñeca de la niña.	Use of "de" to show possession	NSP(1)	70
6	Mi papa no toma café.	Recognition of negative signal preceding verb in utterance with subject expressed	N(1)	100
7	¿Es su mono?	Possessive adjective, 3rd person singular with singular noun (masc. or fem.)	Ma(8)	83

[*] In items testing morphology, the feature tested is underlined. The items are listed in the order in which they were presented to students on the final test. The response alternatives were printed English sentences.

[†] The coding system was designed as an aid in referring to identical features across tests in listening and speaking grammar and grammar transfer. The coding system applies to all three courses. An explanation of the system is given in a note at the end of Table 115, p. 218.

TABLE 125 continued

Number of Item	Item	Description of Feature Tested	Code	Percentage of Students Answering Correctly
8	Tiene el oso y el mono.	Noun phrase as subject (unexpressed), transitive verb, noun phrase as direct object	3a(u)	91
9	La niña guapa entra en la casa.	Position of descriptive adjective following noun	NSP(2)	83
10	Sale de la casa.	Regular form, verb "salir," 3rd person singular, present tense	Mvr(7)	43
11	Fuma una pipa.	Regular form, "ar" verb, 3rd person singular, present tense	Mvr(3)	41
12	No, los niños no toman café.	Negative pattern: noun phrase as subject, negative particle, transitive verb, noun phrase as direct object (in sentence following the utterance "No")	N(11)	95
13	¿De dónde es Elena?	Interrogative pattern (information question): interrogative phrase, verb "ser," noun phrase as subject	?(7)	52
14	¿Tiene Sancho una pipa?	Interrogative pattern (yes-no question): transitive verb, noun phrase as subject, noun phrase as direct object	?(4)	81
15	No come pan.	Recognition of negative signal in initial position in utterance with subject unexpressed	N(2)	95

TABLE 125 continued

Number of Item	Item	Description of Feature Tested	Code[†]	Percentage of Students Answering Correctly
16	Duerme con una muñeca.	Noun phrase as subject (unexpressed), intransitive verb, adverb	2a(u)	79
17	Es mi hermano.	Masculine singular noun with "o" ending	Mn(1)	89
18	Los niños tienen mi oso.	Noun phrase as subject, transitive verb, noun phrase as direct object	3a	97
19	Soy flaco.	Irregular form, verb "ser," 1st person singular, present tense	Mvi(5)	43
20	El oso es gordo.	Noun phrase as subject, verb "ser," predicate adjective	1b	93
21	¿Qué pone la niña en la mesa?	Interrogative pattern (information question): interrogative word, transitive verb, noun phrase as subject	?(5)	75
22	No es la casa de los osos.	Negative pattern: noun phrase as subject (unexpressed), negative particle, verb "ser," noun phrase as predicate nominative	N(6)	70
23	¿De quiénes son las pipas?	"De" + "quien" to convey "whose?"	NSP(6)	58

[†] The coding system was designed as an aid in referring to identical features across tests in listening and speaking grammar and grammar transfer. The coding system applies to all three courses. An explanation of the system is given in a note at the end of Table 115, p. 218.

TABLE 125 continued

Number of Item	Item	Description of Feature Tested	Code	Percentage of Students Answering Correctly
24	No, Sancho no es una niña.	Recognition of negative signal preceding verb in utterance with subject expressed (following the utterance "No")	N(3)	91
25	Comen el queso.	Regular form, "er" verb, 3rd person plural, present tense	Mvr(10)	45
26	¿Dónde duerme la paloma?	Interrogative pattern (information question): interrogative word, intransitive verb, noun phrase as subject	?(6)	66
27	¿Qué son?	Irregular form, verb "ser," 3rd person plural, present tense	Mvi(9)	68
28	Los niños no fuman una pipa.	Negative pattern: noun phrase as subject, negative particle, noun phrase as direct object	N(5)	91
29	Tiene las tazas.	Plural article and plural noun signals	Mn(4)	91
30	¿Es gordo su mono?	Interrogative pattern (yes-no question): verb "ser," predicate adjective, noun phrase as subject	?(8)	64
31	Hay un oso en la casa.	Verb "hay," noun phrase as subject, adverb	6a	93
32	Papá lo come.	Noun phrase as subject, noun phrase as direct object (pronoun), transitive verb	3aa	35
33	Salimos esta noche.	Regular form, verb "salir," 1st person plural, present tense	Mvr(9)	43

TABLE 125 continued

Number of Item	Item	Description of Feature Tested	Code[†]	Percentage of Students Answering Correctly
34	¿Toca el piano también?	Interrogative signal (intonation in yes-no question) with noun phrase as subject unexpressed	?(2)'	72
35	Las niñas quieren cantar.	Noun phrase as subject, transitive verb with verb infinitive as complement	5f	77
36	Llevan pantalones.	Regular form, "ar" verb, 3rd person plural, present tense	Mvr(5)	25
37	El niño tiene que salir.	Noun phrase as subject, transitive verb, relator word, infinitive of verb	5g	62
38	Teresa las tiene.	Pronoun direct object, feminine plural	Mp(4)	50
39	El papá lee un libro a su hija.	Noun phrase as subject, transitive verb, noun phrase as direct object, relator word, noun phrase as indirect object	4a	72
40	Quiero comer.	Noun phrase as subject (unexpressed), transitive verb with verb infinitive as complement	5f(u)	85
41	Somos hermanos.	Irregular form, verb "ser," 1st person plural, present tense	Mvi(8)	39
42	Tengo que estudiar.	Noun phrase as subject (unexpressed), transitive verb, relator word, infinitive of verb	5g(u)	72

[†] The coding system was designed as an aid in referring to identical features across tests in listening and speaking grammar and grammar transfer. The coding system applies to all three courses. An explanation of the system is given in a note at the end of Table 115, p. 218.

TABLE 125 continued

Number of Item	Item	Description of Feature Tested	Code	Percentage of Students Answering Correctly
43	Sí, queremos salir.	Regular form, verb "querer," 1st person plural, present tense	Mvr'(13)	37
44	Los niños cantan bien.	Noun phrase as subject, intransitive verb, adverb	2a	85
45	¿Quiere escribir Tomás?	Interrogative pattern: transitive verb with verb infinitive as complement, noun phrase as subject	?(11)	60
46	Canto una canción.	Regular form, "ar" verb, 1st person singular, present tense	Mvr(1)	64
47	¿Tiene usted que estudiar?	Interrogative pattern (yes-no question): transitive verb, noun phrase as subject, relator word, infinitive of verb	?(12)	56
48	No lo creo.	Negative pattern: noun phrase as subject (unexpressed), negative particle, noun phrase as direct object (pronoun), transitive verb	N(10)	77
49	Escuchamos la música.	Regular form, "ar" verb, 1st person plural, present tense	Mvr(4)	54
50	¿Canta bien Sancho?	Interrogative signal (intonation in yes-no question) with noun phrase as subject expressed	?(1)	56
51	Mis amigos españoles no leen el inglés.	Negative pattern: noun phrase as subject (modified), negative particle, transitive verb, noun phrase as direct object	N(4)	62

TABLE 125 continued

Number of Item	Item	Description of Feature Tested	Code†	Percentage of Students Answering Correctly
52	Digo, "Adiós, profesor."	Irregular form, verb "decir," 1st person singular, present tense	Mvi(3)	58
53	Las que comen mucho son gordas.	Nominalized definite article "las" modified by a phrase ("Las que" to convey "the ones who")	NSP(7)	77
54	Lo enseña a su hijo.	Noun phrase as subject (unexpressed), noun phrase as direct object, (pronoun), transitive verb, relator word, noun phrase as indirect object	4a'	77
55	Sancho tiene más dinero que Felipe.	Comparison of inequality, ("más que" to convey "more than")	NSP(8)	85
56	No cantamos en la clase de Español.	Negative pattern: noun phrase as subject (unexpressed), negative particle, intransitive verb, adverb	N(6)'	70
57	Es un gatito.	Diminutive suffix "it," plus masculine suffix "o"	Mn(5)	81
58	Mamá lo quiere.	Pronoun direct object, singular masculine	Mp(2)	27
59	No sé si es Felipe.	Irregular form, verb "saber," 1st person singular, present tense	Mvi(2)	56
60	Nuestros amigos son altos.	Possessive adjective, 1st person plural, with plural noun	Ma(17)	50

† The coding system was designed as an aid in referring to identical features across tests in listening and speaking grammar and grammar transfer. The coding system applies to all three courses. An explanation of the system is given in a note at the end of Table 115,p.218.

TABLE 125 continued

Number of Item	Item	Description of Feature Tested	Code	Percentage of Students Answering Correctly
61	¿Quiere usted comprarlo?	Interrogative pattern: transitive verb, noun phrase as subject, transitive verb as complement, noun phrase as direct object (pronoun)	?(13)	77

TABLE 126

PERCENTAGE OF STUDENTS CORRECTLY ANSWERING EACH LISTENING COMPREHENSION GRAMMAR TRANSFER ITEM TESTED AT THE END OF THE SPA COURSE, WITH A DESCRIPTION OF EACH FEATURE TESTED*

Number of Item	Item	Description of Feature Tested	Code†	Percentage of Students Answering Correctly
1	La muñeca toma café.	Noun phrase as subject, transitive verb, noun phrase as direct object	3a	91
2	No come en la cocina.	Recognition of negative signal in initial position in utterance with subject unexpressed	N(2)	91
3	¿Tiene el oso una muñeca?	Interrogative pattern (yes-no question): transitive verb, noun phrase as subject, noun phrase as direct object	?(4)	60
4	Los monos salen mucho.	Noun phrase as subject, intransitive verb, adverb	2a	77
5	Es el nido alto.	Noun phrase as subject (unexpressed), verb "ser," noun phrase as predicate nominative	1a(u)	85
6	No, las palomas no toman leche.	Recognition of negative signal preceding verb in utterance with subject expressed (following the utterance "No")	N(3)	89

* In items testing morphology, the feature tested is underlined. The items are listed in the order in which they were presented to students on the final test. The response alternatives were printed English sentences.

† The coding system was designed as an aid in referring to identical features across tests in listening and speaking grammar and grammar transfer. The coding system applies to all three courses. An explanation of the system is given in a note at the end of Table 115, p. 218.

TABLE 126 continued

Number of Item	Item	Description of Feature Tested	Code	Percentage of Students Answering Correctly
7	Hay un mono en el nido.	Verb "hay," noun phrase as subject, adverb	6a	79
8	¿Cuántos peces cortan los niños?	Interrogative pattern (information question): interogative word, transitive verb, noun phrase as subject	?(5)	72
9	Come el pan de la paloma.	Use of "de" to show possession	NSP(1)	58
10	No es la cama.	Negative pattern: noun phrase as subject (unexpressed), negative particle, verb "ser," noun phrase as predicate nominative	N(6)	58
11	La cocina es grande.	Noun phrase as subject, verb "ser," predicate adjective	1b	94
12	Sale de la clase con el gato.	Noun phrase as subject (unexpressed), intransitive verb, adverb	2a(u)	64
13	El pez no corta el pan.	Negative pattern: noun phrase as subject, negative particle, noun phrase as direct object	N(5)	83
14	El oso gordo come una paloma.	Position of descriptive adjective following noun	NSP(2)	71
15	¿De dónde es el mono?	Interrogative pattern (information question): interrogative phrase, verb "ser," noun phrase as subject	?(7)	48
16	¿Es Española su paloma?	Interrogative pattern (yes-no question): verb "ser," predicate adjective, noun phrase as subject	?(8)	44

TABLE 126 continued

Number of Item	Item	Description of Feature Tested	Code[†]	Percentage of Students Answering Correctly
17	¿Por qué entra el mozo en la cocina?	Interrogative pattern (information question): interrogative word, intransitive verb, noun phrase as subject	?(6)	70
18	La paloma no tiene un nido.	Recognition of negative signal preceding verb in utterance with subject expressed	N(1)	86
19	¿De quién es el vino?	"De quién" to convey "whose"	NSP(6)	50
20	No, el mozo no come queso.	Negative pattern: noun phrase as subject, negative particle, transitive verb, noun phrase as direct object (in sentence following the utterance "No")	N(11)	89
21	Tienen dos peceras y un pez.	Noun phrase as subject (unexpressed), transitive verb, noun phrase as direct object	3a(u)	62
22	El oso lo estudia.	Noun phrase as subject, noun phrase as direct object (pronoun), transitive verb	3aa	59
23	Tienen que escuchar.	Noun phrase as subject (unexpressed), transitive verb, relator word, infinitive of verb	5g(u)	52

[†] The coding system was designed as an aid in referring to identical features across tests in listening and speaking grammar and grammar transfer. The coding system applies to all three courses. An explanation of the system is given in a note at the end of Table 115, p. 218.

TABLE 126 continued

Number of Item	Item	Description of Feature Tested	Code	Percentage of Students Answering Correctly
24	El mono canta la canción al niño.	Noun phrase as subject, transitive verb, noun phrase as direct object, relator word, noun phrase as indirect object	4a	62
25	No escribe la historia en la escuela.	Negative pattern: noun phrase as subject (unexpressed), negative particle, transitive verb, noun phrase as direct object	N(6)'	40
26	El pez quiere leer.	Noun phrase as subject, transitive verb with verb infinitive as complement	5f	58
27	Los que llevan camisas son hermanos.	Nominalized definite article "los" modified by a phrase ("Los que" to convey "the ones who")	NSP(7)	40
28	Preferimos tocar.	Noun phrase as subject (unexpressed), transitive verb with verb infinitive as complement	5f(u)	50
29	La cantan al oso.	Noun phrase as subject (unexpressed), noun phrase as direct object (pronoun), transitive verb, noun phrase as indirect object	4a'	31
30	¿Escuchan la música ahora?	Interrogative signal (intonation in yes-no question) with noun phrase as subject unexpressed	?(2)	37
31	El mono tiene que estudiar.	Noun phrase as subject, transitive verb, relator word, infinitive of verb	5g	55

TABLE 126 continued

Number of Item	Item	Description of Feature Tested	Code[†]	Percentage of Students Answering Correctly
32	¿Quieren cantar los elefantes?	Interrogative pattern: transitive verb with verb infinitive as complement, noun phrase as subject	?(11)	31
33	El gato amarillo no come peces.	Negative pattern: noun phrase as subject (modified), negative particle, transitive verb, noun phrase as direct object	N(4)	51
34	¿Tiene que bailar la paloma?	Interrogative pattern: transitive verb, relator word, infinitive of verb, noun phrase as subject	?(12)	37
35	Los osos compran más leche que los gatos.	Comparison of inequality, ("más que" to convey "more than")	NSP(8)	39
36	¿Escribe bien su mono?	Interrogative signal (intonation in yes-no question) with noun phrase as subject expressed	?(1)	55
37	No lo hace.	Negative pattern: noun phrase as subject (unexpressed), negative particle, noun phrase as direct object (pronoun), transitive verb	N(10)	21
38	¿Quiere el gato enseñarlo?	Interrogative pattern: transitive verb, noun phrase as subject, transitive verb complement, noun phrase as direct object (pronoun)	?(13)	33

[†] The coding system was designed as an aid in referring to identical features across tests in listening and speaking grammar and grammar transfer. The coding system applies to all three courses. An explanation of the system is given in a note at the end of Table 115, p. 218.

TABLE 127

PERCENTAGE OF STUDENTS CORRECTLY ANSWERING EACH SPEAKING VOCABULARY ITEM TESTED AT END OF COURSE IN SPA CLASSES, SHOWING THE CONTEXT IN WHICH EACH RESPONSE WAS SOUGHT*

Number of Item	Item	Percentage of Students Answering Correctly	Number of Item	Item	Percentage of Students Answering Correctly
1	Es una mesa.	85	17	Es un pino.	44
2	Es una piña.	83	18	Es un oso.	89
3	Es un niño (muchacho).	93	19	Es una muñeca.	83
			20	Es una paloma.	71
4	Es un vaso.	75	21	Es una mano.	61
5	Es un pez.	63	22	Es una casa.	89
6	Es un cuchillo.	63	23	Es una cuchara.	73
7	Es una taza.	51	24	Es mi hermano.	63
8	Es una pecera.	53	25	Es la cocina.	77
9	Es un nido.	75	26	Es el mozo.	73
10	Es una cama.	77	27	Es queso.	48
11	Es un dormitorio.	83	28	Es pan.	87
12	Es un pozo.	36	29	Es café.	95
13	Es una pipa.	95	30	Es vino.	81
14	Es una puerta.	22	31	Es mamá.	100
15	Es un plato.	85	32	Es leche.	95
16	Es un mono.	93	33	Es sopa.	93

* Vocabulary items are underlined. The Spanish utterances are listed in the order in which they were presented to students on the final test. The required student response was a brief Spanish utterance. Only the underlined words were scored.

TABLE 127 Continued

Number of Item	Item	Percentage of Students Answering Correctly	Number of Item	Item	Percentage of Students Answering Correctly
34	Es carne.	51	52	Es francés.	63
35	Es té.	75	53	Tiene un vaso.	65
36	Es papá (padre).	97	54	Tiene hambre.	22
37	Es grande.	79	55	Corta el pan.	42
38	Es gordo.	79	56	Pone el vaso en la mesa.	46
39	Es español.	97	57	Número uno.	91
40	Es flaco.	85	58	¿Qué es?	73
41	Es alto.	75	59	Hay leche.	28
42	Es pequeño.	53	60	¿Cuántos hay?	44
43	Es bajo.	42	61	Quiere otro vaso.	32
44	Es guapo.	75	62	¿De quién es?	4
45	Tiene sed.	12	63	En la casa.	87
46	Sale.	57	64	Es mi mamá.	91
47	Fuma.	89	65	¿Qué hace?	24
48	Entra.	48	66	Con el oso.	51
49	Duerme.	71	67	Tengo un vaso.	63
50	Come.	69	68	No, pero es grande.	44
51	Toma café.	83	69	Número seis.	97

TABLE 127 Continued

Number of Item	Item	Percentage of Students Answering Correctly	Number of Item	Item	Percentage of Students Answering Correctly
70	Es su (tu) mono.	63	88	Sale conmigo.	24
71	Tiene sueño.	14	89	Es una persona.	93
72	Número dos.	95	90	Es una carta.	24
73	Gracias.	93	91	Es un hombre (señor).	69
74	Número tres.	100	92	Es un pato.	26
75	Mamá o papá.	79	93	Es una pera.	34
76	¿Cuándo come?	18	94	Es un alumno.	63
77	Porque es Felipe.	63	95	Es un pollito.	22
78	Quiero mucho.	59	96	Es una pluma.	69
79	Número cuatro.	97	97	Es un elefante.	97
80	Mamá y papá.	91	98	Es un huevo.	32
81	Es de España.	38	99	Es una escuela.	44
82	¿Dónde come?	40	100	Es un abrigo.	53
83	Número cinco.	97	101	Es un amigo.	67
84	Es esta tarde.	22	102	Es una blusa.	87
85	¿Qué son?	42	103	Es un minuto.	36
86	¿Es de Francia?	32	104	Es un animal.	100
87	¿Por qué?	65	105	Es una camisa.	65

TABLE 127 Continued

Number of Item	Item	Percentage of Students Answering Correctly	Number of Item	Item	Percentage of Students Answering Correctly
106	Es un melón.	73	123	Es el papel.	69
107	Es una fruta.	87	124	Es música.	89
108	Es una clase.	91	125	Es dinero.	67
109	Es una muchacha (niña).	87	126	Es historia.	81
			127	Es negro.	89
110	Es una falda.	36	128	Es blanco.	85
111	Es un piano.	77	129	Es necesario.	30
112	Es un libro.	83	130	Es azul.	79
113	Es una mujer (señora).	51	131	Es fácil.	14
114	Es un zapato.	65	132	Es verde.	55
115	Es una familia.	51	133	Es amarillo.	83
116	Es una guitarra.	95	134	Es simpático.	61
117	Es un gato.	75	135	Es fuerte.	57
118	Es una hora.	48	136	Es débil.	16
119	Es una campana.	24	137	Escribe.	32
120	Es un segundo.	22	138	Lee.	53
121	Es mi hijo.	48	139	Lleva un abrigo.	34
122	Es mi profesor (profesora).	81	140	Escucha.	28

TABLE 127 Continued

Number of Item	Item	Percentage of Students Answering Correctly	Number of Item	Item	Percentage of Students Answering Correctly
141	Toca el piano.	51	159	Somos hermanos.	2
142	Quiero comer.	16	160	Es medio queso.	36
143	Llega.	8	161	Cuánto vale.	8
144	Prefiero bailar.	30	162	Canta bien.	59
145	Creo que es de Felipe.	16	163	Quiero más.	18
146	Enseña español.	46	164	Tengo que escribir.	2
147	Sabe muchas cosas.	12	165	Estudio inglés.	85
148	Aprende español.	26	166	El llega tarde.	20
149	Dice muchas cosas.	34	167	Sale temprano.	26
150	Estudio.	51	168	Quiero comprar.	28
151	Puede salir.	8	169	Número trescientos.	71
152	Lo sé.	14	170	Sí, con (mucho) gusto.	24
153	Son los pantalones.	53	171	A qué hora estudia.	10
154	Quiere el libro.	28	172	Número doce.	85
155	Buenas tardes.	51	173	Es muy grande.	51
156	Adiós.	85	174	Número once.	87
157	De nada.	46	175	Qué quiere decir.	8
158	Tiene frío.	20	176	Como más que ella.	20

TABLE 127 Continued

Number of Item	Item	Percentage of Students Answering Correctly
177	Número trece.	83
178	Esta noche.	8
179	Número setenta.	26
180	Quiero cantar.	22
181	Número ocho.	97
182	Esta mañana.	18
183	Número noventa.	55
184	Perdón.	26
185	De qué color es.	30
186	Número quince.	65
187	Ella canta también.	38
188	Este niño.	24
189	¿Cuánto es nueve menos uno?	40
190	Número cien (ciento).	61
191	Felipe tiene bastante.	12
192	El tiene prisa.	6
193	¿Son ellos?	4
194	Sí, si María canta.	18
195	¿Quién es?	36
196	Número cincuenta.	36
197	Tiene (any number) años.	30
198	Come poco.	20
199	Número siete.	91
200	Quiero bailar.	36
201	Ese plato.	14
202	Número catorce.	59
203	Número diez.	89
204	¿Quiénes son estas niñas?	8
205	Número cuarenta.	46
206	Hay tres cosas.	53
207	Número nueve.	93
208	Está bien.	10
209	¿Es él?	26

TABLE 128

PERCENTAGE OF STUDENTS CORRECTLY ANSWERING EACH SPEAKING GRAMMAR ITEM TESTED AT THE END OF THE SPA COURSE, SHOWING RESULTS OF SCORING ON DISCRETE ELEMENTS AND ON ENTIRE UTTERANCE*

Number of Item	Item	Description of Feature Tested	Code†	Percentage of Students Answering Correctly	
				Discrete Element	Entire Utterance
1	Un gato en un animal.	Noun phrase as subject, verb "ser," noun phrase as predicate nominative	1a	76	37
2	Es la una.	Definite article plus number in reference to telling time	NSP(4)	74	60
3	Mi casa es pequeña	Noun phrase as subject verb "ser," predicate adjective	1b	82	62
4	Sancho compra un libro.	Noun phrase as subject, transitive verb, noun phrase direct object	3a	62	37
5	Yo quiero aprender el español.	Definite article with name of language	NSP(9)	3	0
6	No lo tengo.	Negative pattern: noun phrase as subject (unexpressed), negative particle, noun phrase as direct object (pronoun) transitive verb	N(10)	11	9
7	Es el muchacho del oso.	Contraction "de" + "el" to "del"	NSP(10)	11	9

* Items are listed in the order in which they were presented to students on the final test. In scoring on discrete elements, only errors on the point being tested caused loss of credit. In scoring on the entire utterance, the utterance had to be completely free of error for the response to be marked correct. A complete listing of the elements required in each student response is presented in Table 129, p. 302.

† The coding system was designed as an aid in referring to identical features across tests in listening and speaking grammar and grammar transfer. The coding system applies to all three courses. An explanation of the system is given in a note at the end of Table 115, p. 218.

TABLE 128 continued

Number of Item	Item	Description of Feature Tested	Code	Percentage of Students Answering Correctly	
				Discrete Element	Entire Utterance
8	Sancho lo lleva.	Noun phrase as subject, noun phrase as direct object (pronoun), transitive verb	3aa	9	9
9	¿Tiene María un abrigo azul?	Position of descriptive adjective following noun	NSP(2)	35	7
10	La muñeca duerme en la cama.	Noun phrase as subject, intransitive verb, adverb	2a	72	66
11	Las (muchachas) que comen mucho son gordas.	Nominalized definite article "las" modified by a phrase ("las que" to convey "the ones who")	NSP(7)	1	1
12	Sancho tiene más dinero que María.	Comparison of inequality ("más" plus "que" to convey "more than")	NSP(8)	27	25
13	El profesor enseña una canción a los alumnos.	Noun phrase as subject, transitive verb, noun phrase as direct object, relator word, noun phrase as indirect object	4a	21	7
14	La mamá lee al niño.	Contraction of "a" + "el" to "al"	NSP(11)	1	1
15	Los muchachos quieren bailar.	Noun phrase as subject, transitive verb with verb infinitive as complement	5f	33	9
16	Yo tengo que estudiar.	Noun phrase as subject, transitive verb, relator word, infinitive of verb	5g	1	1
17	Hay cinco vasos en la mesa.	Verb "hay," noun phrase as subject, adverb	6a	58	54
18	Es el oso de Sancho.	Use of "de" to indicate possession	NSP(1)	29	19

TABLE 128 continued

Number of Item	Item	Description of Feature Tested	Code†	Percentage of Students Answering Correctly	
				Discrete Element	Entire Utterance
19	No, Sancho no es simpático.	Negative pattern: noun phrase as subject, negative particle, verb "ser," predicate adjective (in sentence following the utterance "No").	N(11)	37	33
20	El papa lo enseña a su hijo.	Noun phrase as subject, noun phrase as direct object (pronoun), transitive verb, relator word, noun phrase as indirect object	4a'	0	0
21	¿Escucha María la música?	Interrogative pattern (yes-no question): transitive verb, noun phrase subject, noun phrase as direct object	?(4)	5	3
22	¿De quién es el oso?	De + quién to express "whose"	NSP(6)	7	3
23	¿Compra María una muñeca grande?	Interrogative pattern (yes-no question): transitive verb, noun phrase subject, noun phrase as direct object (modified)	?(4')	9	7
24	¿Dónde canta Sancho?	Interrogative pattern (information question): interrogative word, intransitive verb, noun phrase as subject	?(6)	29	15
25	¿Es grande su casa?	Interrogative pattern (yes-no question): verb "ser," predicate adjective noun phrase as subject	?(8)	7	5

† The coding system was designed as an aid in referring to identical features across tests in listening and speaking grammar and grammar transfer. The coding system applies to all three courses. An explanation of the system is given in a note at the end of Table 115, p. 218.

TABLE 128 continued

Number of Item	Item†	Description of Feature Tested	Code	Percentage of Students Answering Correctly	
				Discrete Element	Entire Utterance
26	¿Por qué no come María?	Negative-interrogative pattern: interrogative word, negative particle, intransitive verb, noun phrase as subject	N(12)	23	23
27	¿Qué lleva María?	Interrogative pattern (information question): interrogative word, transitive verb, noun phrase as subject	?(5)	43	37
28	¿De dónde es María?	Interrogative pattern (information question): interrogative phrase, verb "ser," noun phrase as subject	?(7)	13	11
29	¿Cantan las mujeres?	Interrogative pattern (yes-no question): intransitive verb, noun phrase as subject	?(10)	11	11
30	(Sí.) Soy fuerte.	Irregular form, verb "ser," first person singular, present tense	Mvi(5)	7	7
31	(Yo.) Lo sé.	Irregular form, verb "saber," first person singular, present tense	Mvi(2)	1	0
32	(No.) Es el niño.	Agreement masculine singular article + masculine singular noun ending in o	Mn(1)	33	31
33	(No.) Nuestra muchacha canta bien.	Agreement first person plural feminine possessive adjective + feminine singular noun	Ma(9)	3	3

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† Items 30-49 test morphology. In each item the specific morphological feature tested is underlined.

TABLE 128 continued

Number of Item	Item	Description of Feature Tested	Code[†]	Percentage of Students Answering Correctly	
				Discrete Element	Entire Utterance
34	Los niños toman leche.	Regular form, "ar" verb, 3rd person plural, present tense	Mvr(5)	47	37
35	(Sí.) (Usted) sale temprano.	Regular form, verb "salir," 2nd person singular, present tense	Mvr(7)	3	3
36	(Sí.) (Yo) canto bien.	Regular form, "ar" verb, 1st person singular, present tense	Mvr(1)	21	15
37	(Sí.) (María) las tiene.	Feminine plural, direct object pronoun	Mp(4)	3	3
38	(María) tiene dos blusas verdes.	Agreement of feminine plural noun + adjective with "es" ending	Ma(5)	17	13
39	(Sí.) Son sus libros.	3rd person plural possessive adjective with plural noun	Ma(12)	23	21
40	(La pipa) es amarilla.	Agreement of feminine singular noun (+ verb "ser") + feminine singular adjective	Ma(3)	31	23
41	(No.) Sancho toma leche.	Regular form, "ar" verb, 3rd person singular, present tense	Mvr(3)	68	50
42	(Sí.) Llegamos a las ocho.	Regular form, "ar" verb, first person plural, present tense	Mvr(4)	1	1
43	(Sí.) (Sancho) lo tiene.	Masculine singular, direct object pronoun	Mp(2)	19	17

[†] The coding system was designed as an aid in referring to identical features across tests in listening and speaking grammar and grammar transfer. The coding system applies to all three courses. An explanation of the system is given in a note at the end of Table 115, p. 218.

TABLE 128 continued

Number of Item	Item	Description of Feature Tested	Code	Percentage of Students Answering Correctly	
				Discrete Element	Entire Utterance
44	(Yo) digo adiós.	Irregular form, verb "decir," first person singular, present tense	Mvi(3)	3	3
45	(No.) Sancho es un niño.	Irregular form, verb "ser," third person singular, present tense	Mvi(7)	68	41
46	Los hombres son altos.	Irregular form, verb "ser," third person plural, present tense	Mvi(9)	50	35
47	(El) (oso) es amarillo.	Agreement of masculine singular noun (+ verb "ser") + masculine singular adjective	Ma(1)	52	39
48	No, son las niñas.	Agreement plural article + plural noun	Mn(4)	23	5
49	(Sancho) tiene dos (camisas) blancas.	Agreement of feminine plural noun + feminine plural adjective	Ma(4)	17	15

TABLE 129

LIST OF REQUIRED ELEMENTS IN A CORRECT RESPONSE TO EACH ITEM IN THE SPA SPEAKING GRAMMAR TEST*

Number of Item	Code	Correct Response	
		Scoring Entire Utterance	Scoring Discrete Element
1	1a	(Un gato) es un animal.	a. $\overset{1}{\text{Es}} + \overset{2}{\text{(ND)}} + \overset{3}{\text{animal}}\text{ (persona)}$
			b† $\overset{1}{\text{(ND)}} + \overset{2}{\text{gato}} + \overset{3}{\text{es}} + \overset{4}{\text{(ND)}} + \overset{5}{\text{noun}}\text{ as predicate nominative,}$ except proper name or gato
2	NSP(4)	(Es) la una.	(es) + definite article + una (dos)
3	1b	(Mi casa) es pequeña.	a. $\overset{1}{\text{Es}} + \overset{2}{\text{pequeña}}\text{ (grande)} + \text{(ND} + \overset{3}{\text{casa}}\text{)}$
			b. $\overset{1}{\text{(ND)}} + \overset{2}{\text{casa}} + \overset{3}{\text{es}} + \overset{4}{\text{descriptive adjective}}$
			c. $\overset{1}{\text{(ND)}} + \overset{2}{\text{noun}} + \overset{3}{\text{es}} + \overset{4}{\text{pequeña}}\text{ (grande)}$

* A detailed description of the procedures used in scoring is presented in Chapter 4 of this report.

† Generally, there was more than one correct response. An alternative correct response is indicated by b.

TABLE 129 continued

Number of Item	Code	Correct Response	
		Scoring Entire Utterance	Scoring Discrete Element
4	3a	(Sancho) compra un libro.	a. $\overset{1}{\text{(Proper name)}}$ + $\overset{2}{\text{compra}}$ + $\overset{3}{\text{(ND)}}$ + $\overset{4}{\text{noun}}$ as direct object, except proper name
			b. $\overset{1}{\text{(Proper name)}}$ + $\overset{2}{\text{transitive verb}}$ + $\overset{3}{\text{(ND)}}$ + $\overset{4}{\text{libro}}$ (muñeca)
5	NSP(9)	(Yo) quiero sprender el español.	a. El + language
			b. Definite article + español
6	N(10)	(No), (yo) no lo tengo.	$\overset{1}{\text{(No)}}$ + $\overset{2}{\text{(yo)}}$ + $\overset{3}{\text{no}}$ + $\overset{4}{\text{object pronoun}}$ + $\overset{5}{\text{verb}}$, except ser
7	NSP(10)	(No.) Es el oso del muchacho.	del
8	3aa	(Sí.) (Sancho)* lo lleva.	a. $\overset{1}{\text{(Sí)}}$ + $\overset{2}{\text{(proper name)*}}$ + $\overset{3}{\text{lo}}$ + $\overset{4}{\text{transitive verb}}$
			b. $\overset{1}{\text{(Sí)}}$ + $\overset{2}{\text{(proper name)*}}$ + $\overset{3}{\text{direct object pronoun}}$ + $\overset{4}{\text{lleva}}$
			c. $\overset{1}{\text{(Sí)}}$ + $\overset{2}{\text{noun}}$, except abrigo + $\overset{3}{\text{lo}}$ + $\overset{4}{\text{lleva}}$

* Proper name may appear at end of sentence instead of at the beginning.

TABLE 129 continued

Number of Item	Code	Correct Response	
		Scoring Entire Utterance	Scoring Discrete Element
9	NSP(2)	¿Tiene María un abrigo azul (tambien)?	a. abrigo + descriptive adjective b. noun, except proper name + azul
10	2a	(La muñeca) duerme en la cama.	a. $\overset{1}{\text{(ND)}}$ + $\overset{2}{\text{(muñeca)}}$ + $\overset{3}{\text{duerme}}$ + $\overset{4}{\text{preposition}}$ + $\overset{5}{\text{(ND)}}$ + $\overset{6}{\text{noun}}$, except muñeca b. $\overset{1}{\text{(ND)}}$ + $\overset{2}{\text{(muñeca)}}$ + $\overset{3}{\text{verb}}$ + $\overset{4}{\text{en}}$ + $\overset{5}{\text{(ND)}}$ + $\overset{6}{\text{cama}}$
11	NSP(7)	(Sí.) Las (muchachas) que comen mucho son gordas	definite article + (muchachas) + que
12	NSP(8)	Sancho tiene más dinero que María.	más + noun, except proper name + que
13	4a	(El profesor) enseña una canción a los alumnos.	a. $\overset{1}{\text{(ND)}}$ + $\overset{2}{\text{(profesor)}}$ + $\overset{3}{\text{enseña}}$ + $\overset{4}{\text{(ND)}}$ + $\overset{5}{\text{noun}}$, except alumnos or profesor + $\overset{6}{\text{(ND)}}$ + $\overset{7}{\text{alumnos}}$ b. $\overset{1}{\text{(ND)}}$ + $\overset{2}{\text{(profesor)}}$ + $\overset{3}{\text{transitive verb}}$ + $\overset{4}{\text{(ND)}}$ + $\overset{5}{\text{canción}}$ (lección) + $\overset{6}{\text{relator word}}$ + $\overset{7}{\text{(ND)}}$ + $\overset{8}{\text{alumnos}}$

TABLE 129 continued

Number of Item	Code	Correct Response	
		Scoring Entire Utterance	Scoring Discrete Element
			c. $\overset{1}{\text{(ND)}}$ + $\overset{2}{\text{(profesor)}}$ + $\overset{3}{\text{enseña}}$ + $\overset{4}{\text{(ND)}}$ + $\overset{5}{\text{(canción)}}$ lección + $\overset{6}{\text{relator word}}$ + $\overset{7}{\text{(ND)}}$ + $\overset{8}{\text{noun}}$, except profesor, lección, or canción
			d. $\overset{1}{\text{(ND)}}$ + $\overset{2}{\text{noun}}$, except alumnos, lección, or canción + $\overset{3}{\text{enseña}}$ + $\overset{4}{\text{(ND)}}$ + $\overset{5}{\text{(canción)}}$ lección + $\overset{6}{\text{relator word}}$ + $\overset{7}{\text{(ND)}}$ + $\overset{8}{\text{alumnos}}$
14	NSP(11)	(No.) (La mamá) lee al niño.	al
15	5f	(Los muchachos) quieren bailar.	a. $\overset{1}{\text{(ND)}}$ + $\overset{2}{\text{(muchachos)}}$ + $\overset{3}{\text{verb requiring complement}}$ + $\overset{4*}{\text{bailar}}$ (cantar)
			b. $\overset{1}{\text{(ND)}}$ + $\overset{2}{\text{(muchachos)}}$ + $\overset{3}{\text{quieren}}$ + $\overset{4}{\text{infinitive}}$
			c. $\overset{1}{\text{(ND)}}$ + $\overset{2}{\text{noun}}$ + $\overset{3}{\text{quieren}}$ + $\overset{4*}{\text{bailar}}$ (cantar)
16	5g	(Yo) tengo que estudiar.	$\overset{1}{\text{(Subject pronoun)}}$ + $\overset{2}{\text{tengo}}$ + $\overset{3}{\text{que}}$ + $\overset{4}{\text{infinitive}}$

* Proper name as subject may appear at end of sentence instead of slot 2.

TABLE 129 continued

Number of Item	Code	Correct Response	
		Scoring Entire Utterance	Scoring Discrete Element
17	6a	Hay cinco (vasos) (en la mesa).	a. $\overset{1}{\text{Hay}} + \overset{2}{\text{(number)}} + \overset{3}{\text{noun}}\text{, except mesa} + \overset{4}{\text{en}} + \overset{5}{\text{(ND)}} + \overset{6}{\text{mesa}}$ b. $\overset{1}{\text{Hay}} + \overset{2}{\text{(number)}} + \overset{3}{\text{vasos}} + \overset{4}{\text{preposition}} + \overset{5}{\text{(ND)}} + \overset{6}{\text{noun}}\text{, except vaso}$
18	NSP(1)	Es el oso de Sancho.	de + (ND) + noun, except oso
19	N(11)	(No.) (Sancho) no es simpático.	$\overset{1}{\text{(No)}} + \overset{2}{\text{(noun)}} + \overset{3}{\text{no}} + \overset{4}{\text{verb}} + \text{(anything }\overset{5}{\text{except}}\text{ "no")}$
20	4a'	(Sí.) (El papá) lo enseña a su hijo.	a. $\overset{1}{\text{(Sí)}} + \overset{2}{\text{(ND)}} + \overset{3}{\text{(papá)}} + \overset{4}{\text{lo}} + \overset{5}{\text{transitive verb}} + \overset{6}{\text{relator}}\text{ word} + \overset{7}{\text{(ND)}} + \overset{8}{\text{hijo}}$ b. $\overset{1}{\text{(Sí)}} + \overset{2}{\text{(ND)}} + \overset{3}{\text{(papá)}} + \overset{4}{\text{object pronoun}} + \overset{5}{\text{enseña}} + \overset{6}{\text{relator}}\text{ word} + \overset{7}{\text{(ND)}} + \overset{8}{\text{hijo}}$ c. $\overset{1}{\text{(Sí)}} + \overset{2}{\text{(ND)}} + \overset{3}{\text{(papá)}} + \overset{4}{\text{lo}} + \overset{5}{\text{enseña}} + \overset{6}{\text{relator}}\text{ word} + \overset{7}{\text{(ND)}} + \overset{8}{\text{noun}}\text{, except papá or libro}$

TABLE 129 continued

Number of Item	Code	Correct Response	
		Scoring Entire Utterance	Scoring Discrete Element
21	?(4)	¿Escucha María* la música (también)?	a. $\overset{1}{\text{Escucha}}$ + $\overset{2*}{\text{proper name}}$ + $\overset{3}{\text{(ND)}}$ + $\overset{4}{\text{noun as direct object}}$ except proper name b. $\overset{1}{\text{Transitive verb}}$ + $\overset{2*}{\text{proper name}}$ + $\overset{3}{\text{(ND)}}$ + $\overset{4}{\text{música}}$
22	NSP(6)	¿De quién es el oso?	de + quién
23	?(4')	¿Compra María* una muñeca grande?	a. $\overset{1}{\text{Compra}}$ + $\overset{2*}{\text{proper name}}$ + $\overset{3}{\text{(ND)}}$ + $\overset{4}{\text{noun as direct object}}$ + $\overset{5}{\text{(grande)}}$† b. $\overset{1}{\text{Transitive verb}}$ + $\overset{2*}{\text{proper name}}$ + $\overset{3}{\text{(ND)}}$ + $\overset{4}{\text{muñeca}}$ + $\overset{5}{\text{(grande)}}$† c. $\overset{1}{\text{Compra}}$ + $\overset{2}{\text{proper name}}$ + $\overset{3}{\text{(ND)}}$ + $\overset{4}{\text{muñeca}}$ + $\overset{5}{\text{(descriptive adjective)}}$†

* Proper name may appear at end of sentence instead of in slot 2.

† Item is not marked incorrect if descriptive adjective comes before noun direct object.

TABLE 129 continued

Number of Item	Code	Correct Response	
		Scoring Entire Utterance	Scoring Discrete Element
24	?(6)	¿Dónde canta Sancho?	a. $\overset{1}{\text{Interrogative word}} + \overset{2}{\text{canta}} + \overset{3}{\text{proper name}}$
			b. $\overset{1}{\text{Dónde}} + \overset{2}{\text{verb}} + \overset{3}{\text{proper name}}$
25	?(8)	¿Es grande su casa?	a. $\overset{1}{\text{Es}} + \overset{2}{\text{descriptive adjective}} + \overset{3}{\text{ND}} + \overset{4}{\text{casa}}$
			b. $\overset{1}{\text{Es}} + \overset{2}{\text{grande}} + \overset{3}{\text{ND}} + \overset{4}{\text{noun}}$
26	N(12)	¿Por qué no come María?	a. $\overset{1}{\text{Por qué}} + \overset{2}{\text{no}} + \overset{3}{\text{verb, except ser}} + \overset{4}{\text{proper name}}$
			b. $\overset{1}{\text{Interrogative word}} + \overset{2}{\text{no}} + \overset{3}{\text{come}} + \overset{4}{\text{proper name}}$
27	?(5)	¿Qué lleva María?	a. $\overset{1}{\text{Qué}} + \overset{2}{\text{transitive verb}} + \overset{3}{\text{proper name}}$
			b. $\overset{1}{\text{Interrogative word}} + \overset{2}{\text{lleva}} + \overset{3}{\text{proper name}}$

TABLE 129 continued

Number of Item	Code	Correct Response	
		Scoring Entire Utterance	Scoring Discrete Element
28	?(7)	¿De dónde es María?	1 2 3 4 de + interrogative word + es + proper name
29	?(10)	¿Cantan las mujeres?	a. 1 2 3 Cantan (bailan) + ND + noun
			b. Verb, except ser + ND + mujeres (hombres)
30	Mvi(5)	(Sí,) soy fuerte.	soy
31	Mvi(2)	(Yo) lo sé.	sé
32	Mn(1)	(No,) es el niño.	El niño (muchacho)
33	Ma(9)	(No,) nuestra muchacha canta bien.	nuestra muchacha
34	Mvr(5)	Los niños toman leche.	toman
35	Mvr(7)	(Sí.) (Usted) sale temprano.	sale
36	Mvr(1)	(Sí.) (Yo) canto bien.	canto
37	Mp(4)	(Sí,) (María) las tiene.	las
38	Ma(5)	(María) tiene dos blusas verdes.	blusas verdes

TABLE 129 continued

Number of Item	Code	Correct Response	
		Scoring Entire Utterance	Scoring Discrete Element
39	Ma(12)	(Sí,) son sus libros.	sus
40	Ma(3)	(La pipa) es amarilla.	(la) + (feminine noun) + amarilla
41	Mvr(3)	(No,) Sancho toma leche.	toma
42	Mvr(4)	(Sí,) llegamos a las ocho.	llegamos
43	Mp(2)	(Sí,) (Sancho) lo tiene.	lo
44	Mvi(3)	(Yo) digo adiós.	digo
45	Mvi(7)	(No,) Sancho es un niño.	es
46	Mvi(9)	Los hombres son altos.	son
47	Ma(1)	(El) (oso) es amarillo.	(El) + (masculine noun) + amarillo
48	Mn(4)	No, son las niñas.	las niñas (muchachas)
49	Ma(4)	(Sancho) tiene dos (camisas) blancas.	(camisas) blancas

TABLE 130

PERCENTAGE OF STUDENTS CORRECTLY ANSWERING EACH SPEAKING GRAMMAR TRANSFER ITEM TESTED AT THE END OF THE SPA COURSE, SHOWING RESULTS OF SCORING ON DISCRETE ELEMENTS AND ON ENTIRE UTTERANCE*

Number of Item	Item	Description of Feature Tested	Code†	Percentage of Students Answering Correctly	
				Discrete Element	Entire Utterance
1	Un mozo es una persona	Noun phrase as subject, verb, "ser," noun phrase as predicate nominative	1a	77	38
2	Son las tres.	Definite article plus number in reference to telling time	NSP(4)	28	18
3	La mesa es negra.	Noun phrase as subject, verb "ser," predicate adjective	1b	75	20
4	El profesor canta una canción.	Noun phrase as subject, transitive verb, noun phrase as direct object	3a	28	2
5	Yo enseño el francés.	Definite article with name of language	NSP(9)	2	2
6	No lo tomamos.	Negative pattern: noun phrase as subject (unexpressed), negative particle, noun phrase as direct object (pronoun), transitive verb	N(10)	12	2
7	Es la guitarra del hombre.	Contraction of "de" + "el" to "del"	NSP(10)	10	2

* Items are listed in the order in which they were presented to students on the final test. In scoring on discrete elements, only errors on the point being tested caused loss of credit. In scoring on the entire utterance, the utterance had to be completely free of error for the response to be marked correct. A complete listing of the elements required in each student response is presented in Table 131, p. 315.

† The coding system was designed as an aid in referring to identical features across tests in listening and speaking grammar and grammar transfer. The coding system applies to all three courses. An explanation of the system is given in a note at the end of Table 115, p. 218.

TABLE 130 continued

Number of Item	Item	Description of Feature Tested	Code	Percentage of Students Answering Correctly	
				Discrete Element	Entire Utterance
8	El alumno lo toca.	Noun phrase as subject, noun phrase as direct object (pronoun), transitive verb	3aa	10	4
9	Sancho fuma una pipa negra.	Position of descriptive adjective following verb	NSP(2)	69	18
10	Sancho sale de la escuela.	Noun phrase as subject, intransitive verb, adverb	2a	28	16
11	Las (muchachas) que comen mucho son gordas.	Nominalized definite article "las" modified by a phrase ("las que" to convey "the ones who")	NSP(7)	6	4
12	El elefante es más fuerte que el oso.	Comparison of inequality ("más" + "que" to convey "more than")	NSP(8)	20	14
13	La niña lee la carta al profesor.	Noun phrase as subject, transitive verb, noun phrase as direct object, relator word, noun phrase as indirect object	4a	16	0
14	El muchacho escribe al hombre.	Contraction of "a" + "el" to "al"	NSP(11)	6	4
15	Yo prefiero cantar.	Noun phrase as subject, transitive verb with verb infinitive as complement	5f	12	4
16	Porque yo tengo que comer.	Noun phrase as subject, transitive verb, relator word, infinitive of verb	5g	6	6
17	Hay dos alumnos en la clase.	Verb "hay," noun phrase as subject, adverb	6a	51	46

TABLE 130 continued

Number of Item	Item	Description of Feature Tested	Code†	Percentage of Students Answering Correctly	
				Discrete Element	Entire Utterance
18	Es la muñeca de la niña.	Use of "de" to indicate possession	NSP(1)	30	12
19	No, el oso no es flaco.	Negative pattern: noun phrase as subject, negative particle, verb "ser," predicate adjective (in sentence following the utterance "No")	N(11)	44	36
20	Sancho lo enseña a su papá.	Noun phrase as subject, noun phrase as direct object (pronoun), transitive verb, relator word, noun phrase as indirect object	4a'	2	2
21	¿Come Susana el pan?	Interrogative pattern (yes-no question): transitive verb, noun phrase as subject, noun phrase as direct object	?(4)	12	10
22	¿De dónde es Sancho?	Use of "de" preceding "dónde" to indicate origin	NSP(12)	16	12
23	¿Tiene Sancho un mono negro?	Interrogative pattern (yes-no question): transitive verb, noun phrase as subject, noun phrase as direct object (modified)	?(4')	20	16
24	¿Por qué no toma usted leche?	Negative-interrogative pattern: interrogative word, negative particle, transitive verb, noun phrase subject, noun phrase as direct object	N(12)	16	8

† The coding system was designed as an aid in referring to identical features across tests in listening and speaking grammar and grammar transfer. The coding system applies to all three courses. An explanation of the system is given in a note at the end of Table 115, p. 218.

TABLE 130 continued

Number of Item	Item	Description of Feature Tested	Code	Percentage of Students Answering Correctly	
				Discrete Element	Entire Utterance
25	¿Es fuerte el gato?	Interrogative pattern (yes-no question): verb "ser," predicate adjective noun phrase as subject	?(8)	10	8
26	¿Cuándo come la mujer?	Interrogative pattern (information question): interrogative word, intransitive verb, noun phrase as subject	?(6)	16	4
27	¿Qué come la niña?	Interrogative pattern (information question): interrogative word, transitive verb, noun phrase as subject	?(5)	36	22
28	¿De quién es la guitarra?	Interrogative pattern (information question): interrogative phrase, verb "ser," noun phrase as subject	?(7)	4	4
29	¿Aprenden los alumnos?	Interrogative pattern (yes-no): intransitive verb, noun phrase as subject	?(10)	10	6

TABLE 131

LIST OF REQUIRED ELEMENTS IN A CORRECT RESPONSE TO EACH ITEM IN THE SPA SPEAKING GRAMMAR TRANSFER TEST[*]

Number of Item	Code	Correct Response	
		Scoring Entire Utterance	Scoring Discrete Element
1	1a	(Un mozo) (es) una persona.	a. $\overset{1}{\text{(Noun, except persona)}} + \overset{2}{\text{es}} + \overset{3}{\text{(ND)}} + \overset{4}{\text{persona}}$
			b[†] $\overset{1}{\text{(ND)}} + \overset{2}{\text{mozo}} + \overset{3}{\text{es}} + \overset{4}{\text{(ND)}} + \overset{5}{\text{noun}}$ as predicate nominative, except proper name or mozo
2	NSP(4)	(Son) las tres.	a. las + number, except one
			b. definite article + tres
3	1b	(La mesa) es negra.	a. $\overset{1}{\text{Es}} + \overset{2}{\text{negra}}\text{ (any color)} + \overset{3}{\text{(ND + noun)}}$
			b. $\overset{1}{\text{(ND)}} + \overset{2}{\text{mesa}} + \overset{3}{\text{es}} + \overset{4}{\text{descriptive adjective}}$
			c. $\overset{1}{\text{(ND)}} + \overset{2}{\text{noun}} + \overset{3}{\text{es}} + \overset{4}{\text{negra}}$

[*] A detailed description of the procedures used in scoring is presented in Chapter 4 of this report.

[†] Generally, there was more than one correct response. An alternative correct response is indicated by b.

TABLE 131 continued

Number of Item	Code	Correct Response		
		Scoring Entire Utterance		Scoring Discrete Element
4	3a	(El profesor) canta una canción española.	a.	$\overset{1}{\text{(ND)}}$ + $\overset{2}{\text{(profesor)}}$ + $\overset{3}{\text{canta}}$ + $\overset{4}{\text{(ND)}}$ + $\overset{5}{\text{noun}}$, except español, profesor, or proper noun + $\overset{6*}{\text{(española)}}$
			b.	$\overset{1}{\text{(ND)}}$ + $\overset{2}{\text{(profesor)}}$ + $\overset{3}{\text{transitive verb}}$ + $\overset{4}{\text{(ND)}}$ + $\overset{5}{\text{canción}}$ + $\overset{6*}{\text{(descriptive adjective)}}$
			c.	$\overset{1}{\text{(ND)}}$ + $\overset{2}{\text{noun}}$, except canción + $\overset{3}{\text{canta}}$ + $\overset{4}{\text{(ND)}}$ + $\overset{5}{\text{canción}}$ + $\overset{6*}{\text{(descriptive adjective)}}$
5	NSP(9)	(Yo) enseño el francés.	a.	el + language
			b.	definite article + francés
6	N(10)	(No.) No lo tomamos.		$\overset{1}{\text{(No)}}$ + $\overset{2}{\text{(subject pronoun)}}$ + $\overset{3}{\text{no}}$ + $\overset{4}{\text{object pronoun}}$ + $\overset{5}{\text{verb}}$, except ser
7	NSP(10)	Sí. Es la guitarra del hombre.		del

* Item is not marked incorrect if descriptive adjective comes before noun direct object.

TABLE 131 continued

Number of Item	Code	Correct Response	
		Scoring Entire Utterance	Scoring Discrete Element
8	3aa	(El alumno) lo toca.	a. $\overset{1}{\text{(ND)}} + \overset{2}{\text{(alumno)}} + \overset{3}{\text{lo}} + \overset{4}{\text{transitive verb}}$
			b. $\overset{1}{\text{(ND)}} + \overset{2}{\text{(alumno)}} + \text{object } \overset{3}{\text{pronoun}} + \overset{4}{\text{toca}}$
			c. $\overset{1}{\text{(ND)}} + \overset{2}{\text{noun, except piano}} + \overset{3}{\text{lo}} + \overset{4}{\text{toca}}$
9	NSP(2)	(Sancho) fuma una pipa negra.	a. Pipa + descriptive adjective
			b. Noun, except proper name + negra
10	2a	(Sancho) sale de la escuela.	a. $\overset{1}{\text{(Proper name or subject pronoun)}} + \overset{2}{\text{sale}} + \overset{3}{\text{preposition}} + \overset{4}{\text{(ND)}} + \overset{5}{\text{noun, except proper name}}$
			b. $\overset{1}{\text{(Proper name or subject pronoun)}} + \overset{2}{\text{verb}} + \overset{3}{\text{de}} + \overset{4}{\text{(ND)}} + \overset{5}{\text{escuela}}$
11	NSP(7)	Las (muchachas) que comen mucho son gordas.	Definite article + (muchachas) + que

TABLE 131 continued

Number of Item	Code	Correct Response	
		Scoring Entire Utterance	Scoring Discrete Element
12	NSP(8)	(Sí.) (El elefante) es más fuerte que el oso.	Más + descriptive adjective + que
13	4a	(La niña) lee la carta al profesor.	a. $\overset{1}{\text{(ND)}}$ + $\overset{2}{\text{(niña)}}$ + $\overset{3}{\text{lee}}$ + $\overset{4}{\text{(ND)}}$ + $\overset{5}{\text{noun}}$, except niña or profesor + $\overset{6}{\text{relator word}}$ + $\overset{7}{\text{(ND)}}$ + $\overset{8}{\text{profesor}}$
			b. $\overset{1}{\text{(ND)}}$ + $\overset{2}{\text{(niña)}}$ + $\overset{3}{\text{transitive verb}}$ + $\overset{4}{\text{(ND)}}$ + $\overset{5}{\text{carta}}$ + $\overset{6}{\text{relator word}}$ + $\overset{7}{\text{(ND)}}$ + $\overset{8}{\text{profesor}}$
			c. $\overset{1}{\text{(ND)}}$ + $\overset{2}{\text{(niña)}}$ + $\overset{3}{\text{lee}}$ + $\overset{4}{\text{(ND)}}$ + $\overset{5}{\text{carta}}$ + $\overset{6}{\text{relator word}}$ + $\overset{7}{\text{(ND)}}$ + $\overset{8}{\text{noun}}$, except niña or carta
			d. $\overset{1}{\text{(ND)}}$ + $\overset{2}{\text{noun}}$, except carta or profesor + $\overset{3}{\text{lee}}$ + $\overset{4}{\text{(ND)}}$ + $\overset{5}{\text{carta}}$ + $\overset{6}{\text{relator word}}$ + $\overset{7}{\text{(ND)}}$ + $\overset{8}{\text{profesor}}$
14	NSP(11)	(El muchacho) escribe al hombre.	al

TABLE 131 continued

Number of Item	Code	Correct Response	
		Scoring Entire Utterance	Scoring Discrete Element
15	5f	(No.) (Yo) prefiero cantar.	a. $\overset{1}{\text{(No)}} + \overset{2}{\text{(yo)}} + \overset{3}{\text{transitive verb requiring complement}} + \overset{4*}{\text{cantar (bailar)}}$
			b. $\overset{1}{\text{(No)}} + \overset{2}{\text{(yo)}} + \overset{3}{\text{prefiero}} + \overset{4}{\text{infinitive}}$
			c. $\overset{1}{\text{(No)}} + \overset{2}{\text{(ND)}} + \overset{3}{\text{noun}} + \overset{4}{\text{prefiero}} + \overset{5*}{\text{cantar (bailar)}}$
16	5g	Porque (yo) tengo que comer.	$\overset{1}{\text{(Porque)}} + \overset{2}{\text{(subject pronoun)}} + \overset{3}{\text{tengo}} + \overset{4}{\text{que}} + \text{infinitive}$
17	6a	Hay dos alumnos (en la clase).	a. $\overset{1}{\text{Hay}} + \overset{2}{\text{(number)}} + \overset{3}{\text{noun, except proper name or clase}} + \overset{4}{\text{en}} + \overset{5}{\text{(ND)}} + \overset{6}{\text{clase}}$
			b. $\overset{1}{\text{Hay}} + \overset{2}{\text{(number)}} + \overset{3}{\text{alumnos}} + \overset{4}{\text{preposition}} + \overset{5}{\text{(ND)}} + \overset{6}{\text{noun, except alumnos}}$

* Infinitive is only acceptable form of the verb.

TABLE 131 continued

Number of Item	Code	Correct Response	
		Scoring Entire Utterance	Scoring Discrete Element
18	NSP(1)	(Sí.) Es la muñeca de la niña.	de + (ND) + noun, except muñeca
19	N(11)	(No.) (El oso) no es flaco.	$\overset{1}{\text{(No)}} + \overset{2}{\text{(ND)}} + \overset{3}{\text{(noun)}} + \overset{4}{\text{no}} + \overset{5}{\text{es}} + \overset{6}{\text{(anything except "no")}}$
20	4a'	(Sancho) lo enseña a su papá.	a. $\overset{1}{\text{(Proper name or subject pronoun)}} + \overset{2}{\text{lo}} + \overset{3}{\text{transitive verb}} + \overset{4}{\text{relator word}} + \overset{5}{\text{(ND)}} + \overset{6}{\text{papá}}$
			b. $\overset{1}{\text{(Proper name or subject pronoun)}} + \overset{2}{\text{object pronoun}} + \overset{3}{\text{enseña}} + \overset{4}{\text{relator word}} + \overset{5}{\text{(ND)}} + \overset{6}{\text{papá}}$
			c. $\overset{1}{\text{(Proper name or subject pronoun)}} + \overset{2}{\text{lo}} + \overset{3}{\text{enseña}} + \overset{4}{\text{relator word}} + \overset{5}{\text{(ND)}} + \overset{6}{\text{noun, except libro or Sancho}}$
21	?(4)	¿Come (Susana)* el pan?	a. $\overset{1}{\text{Come}} + \overset{2*}{\text{(proper name)}} + \overset{3}{\text{(ND)}} + \overset{4}{\text{noun as direct object, except proper name}}$
			b. $\overset{1}{\text{Transitive verb}} + \overset{2*}{\text{(proper name)}} + \overset{3}{\text{(ND)}} + \overset{4}{\text{pan}}$

* Proper name may appear at end of sentence instead of slot 2.

6

TABLE 131 continued

Number of Item	Code	Correct Response		
		Scoring Entire Utterance		Scoring Discrete Element
22	NSP(12)	¿De dónde es (Sancho)?		de + dónde
23	?(4')	¿Tiene (Sancho)* un mono negro?	a.	$\overset{1}{\text{Tiene}}$ + $\overset{2^{*}}{\text{(proper name)}}$ + $\overset{3}{\text{(ND)}}$ + $\overset{4}{\text{noun as direct object}}$ + $\overset{5^{\dagger}}{\text{(negro)}}$
			b.	$\overset{1}{\text{Transitive verb}}$ + $\overset{2^{*}}{\text{(proper name)}}$ + $\overset{3}{\text{(ND)}}$ + $\overset{4}{\text{mono}}$ + $\overset{5^{\dagger}}{\text{(negro)}}$
			c.	$\overset{1}{\text{Tiene}}$ + $\overset{2^{*}}{\text{(proper name)}}$ + $\overset{3}{\text{(ND)}}$ + $\overset{4}{\text{mono}}$ + $\overset{5^{\dagger}}{\text{(descriptive adjective)}}$
24	N(12)	¿Por qué no toma (usted) leche?	a.	$\overset{1}{\text{Por qué}}$ + $\overset{2}{\text{no}}$ + $\overset{3}{\text{verb, except ser}}$ + $\overset{4}{\text{(subject pronoun)}}$ + $\overset{5}{\text{(ND)}}$ + $\overset{6}{\text{noun as direct object, except proper name}}$
			b.	$\overset{1}{\text{Interrogative word}}$ + $\overset{2}{\text{no}}$ + $\overset{3}{\text{toma}}$ + $\overset{4}{\text{(subject pronoun)}}$ + $\overset{5}{\text{(ND)}}$ + $\overset{6}{\text{noun as direct object, except proper name}}$

* Proper name may appear at end of sentence instead of in slot 2.

† Item is not marked incorrect if descriptive adjective comes before noun direct object.

TABLE 131 continued

Number of Item	Code	Correct Response	
		Scoring Entire Utterance	Scoring Discrete Element
25	?(8)	¿Es fuerte (el gato)?	a. Es^{1} + descriptive adjective^{2} + ND^{3} + gato^{4}
			b. Es^{1} + fuerte^{2} + ND^{3} + noun^{4}
26	?(6)	a. ¿Cuándo come (la mujer)?	a. Interrogative word^{1} + come^{2} + (ND)^{3} + (noun)^{4}
		b. ¿Cuándo quiere comer (la mujer)?	b. Cuándo^{1} + quiere^{2} + comer^{3} + (ND)^{4} + (noun)^{5}
27	?(5)	¿Qué come (la niña)?	a. Qué^{1} + transitive verb^{2} + (ND)^{3} + noun^{4}
			b. Interrogative word^{1} + come^{2} + (ND)^{3} + noun^{4}
28	?(7)	¿De quién es la guitarra?	De^{1} + interrogative word^{2} + es^{3} + (ND)^{4} + noun^{5}
29	?(10)	¿Aprenden los alumnos?	a. Aprenden^{1} + ND^{2} + noun^{3}
			b. Verb, except ser^{1} + ND^{2} + alumnos^{3}

TABLE 132

PERCENTAGE OF STUDENTS CORRECTLY ANSWERING EACH PRONUNCIATION (MIMICRY) ITEM TESTED AT THE END OF THE SPA COURSE, GIVING DESCRIPTION OF FEATURE TESTED AND PROBABLE ERROR[*]

Number of Item[†]	Feature Tested	Percentage of Students Answering Correctly	Description of Feature Tested	Stimulus Word	Probable Error
1a	d	28	Fricative or soft d (Should sound like the th of bather)	de dónde	The stop or hard d as in play dough
1b	Synalepha	36	The loss of a syllable at a word boundary when one word ends and the next begins with the same vowel sound: dónde es becomes dondes	dónde es	Any break which preserves two sounds in two syllables
2c	r	93	Spanish flapped r in fr cluster (Should sound a little like the d in F'dancia)	Francia	The English "growled" r as in France or frantic
2d	a	81	Unstressed a, which retains the quality of a as in mano, even when unstressed	Francia	The English obscured vowel as in canyon

[*] The features of phonology are listed in the order in which they were presented to students on the final test. The required student response was always a brief Spanish utterance. Only the specific feature listed was evaluated.

[†] The number designates the test sentence in which the feature being evaluated appeared. The letter designates the feature itself, thus showing when more than one feature in a test sentence was evaluated.

TABLE 132 continued

Number of Item	Feature Tested	Percentage of Students Answering Correctly	Description of Feature Tested	Stimulus Word	Probable Error
3e	r	100	Spanish flapped r between vowels (Should sound a little like the d in kiddie)	quiere	The English "growled" r as in Karo or air raid
3f	k	83	Unaspirated k, which is not as breathy or as forcefully pronounced as English k	cantar	A strongly articulated k with a puff of air after the k as in canteen or canter
3g	Intonation	99	Pattern in a yes/no question: ¿Quiere usted cantar? ↑	¿Quiere usted cantar?	A statement intonation ¿Quiere usted cantar? ↓
4h	o	77	The simple or pure vowel o	no	The English diphthong as in know or go
4i	b	59	Fricative of soft b	quiero bailar	The stop or hard b as in obsolete or no bile
5j	s	83	Voiced s (that is, z) before g: mizgatos	mis gatos	An English s as in this gal or Nurse Gafford
5k	u	99	Spanish u	mucho	Any tendency to pronounce the English diphthong of moon or mutual
6l	r	93	Spanish flapped r in rk cluster (Should sound a little like the rter in porter Kay)	por qué	The English "growled" r as in arcade or poor

TABLE 132 continued

Number of Item	Feature Tested	Percentage of Students Answering Correctly	Description of Feature Tested	Stimulus Word	Probable Error
6m	e	79	The simple or pure vowel e	por que	The English diphthong as in Kay or they
6n	Intonation	91	Pattern in an information question: ¿Por qué come la niña?	¿Por qué come la niña?	A yes/no question intonation: ¿Por qué come la niña?
7o	Liaison	91	The linking of the final consonant of one word with the initial vowel of the next, el hombre becomes lombre	el hombre	Any break which suggests the pronunciation el hombre
8p	p	73	Unaspirated p, which is not as breathy or as forcefully pronounced as English p	pino	A strongly articulated p, with a puff of air after the p, as in pinochle
9q	r	91	Spanish flapped r in tr cluster (Should sound a little like the d in today say)	trece	The English "growled" r as in trcae or Tracy
10r	t	77	Unaspirated t, which is not as breathy or as forcefully pronounced as English t	toca	A strongly articulated t with a puff of air after the t, as in tone or toad
10s	g	42	Fricative or soft g	la guitarra	A stop or hard g as in a guitar nagging
10t	rr	87	A multiple trill	guitarra	The English "growled" r as in tarry or sorry

TABLE 133

PERCENTAGE OF STUDENTS CORRECTLY ANSWERING EACH PRONUNCIATION (CONSTRUCTED RESPONSE) ITEM TESTED AT THE END OF THE SPA COURSE, GIVING DESCRIPTION OF FEATURE TESTED AND PROBABLE ERROR*

Number of Item†	Feature Tested	Percentage of Students Answering Correctly	Description of Feature Tested	Stimulus Word	Probable Error
1a	đ	36	Fricative or soft d (Should sound a little like the th of tithing)	hay dos	The stop or hard d as in Idaho or Fido
1b	a	48	Unstressed a, which retains the quality of a as in mano, even when unstressed	niñas	The English obscured vowel as in canyon or Venus
2c	Liaison	71	The linking of the final consonant of one word with the initial vowel of the next, el oso becomes e loso	el oso	Any break which suggests the pronunciation el oso
3d	p	48	Unaspirated p, which is not as breathy or as forcefully pronounced as English p	pipa	A strongly articulated p with a puff of air after the p, as in people and peeper

* The features of phonology are listed in the order in which they were presented to students on the final test. The required student response was always a brief Spanish utterance. Only the specific feature listed was evaluated.

† The number designates the test sentence in which the feature being evaluated appeared. The letter designates the feature itself, thus showing when more than one feature in a test sentence was evaluated.

TABLE 133 continued

Number of Item	Feature Tested	Percentage of Students Answering Correctly	Description of Feature Tested	Stimulus Word	Probable Error
4e	r	87	Spanish flapped r in tr cluster (Should sound a little like the d in today)	tres	The English "growled" r, as in trace or trestle
4f	e	63	The simple or pure vowel e	tres	The English diphthong, as in trace or they
5g	ǥ	42	Fricative or soft g	una guitarra	The stop or hard g as in a guitar or nagging
5h	rr	85	A multiple trill	guitarra	The English "growled" r as in tarry or sorry
6i	Intonation	51	Pattern in a yes/no question: ¿Quiere cantar María? ↑	¿Quiere cantar María?	A statement intonation: ¿Quiere cantar María? ↓
7j	t	34	Unaspirated t, which is not as breathy or as forcefully pronounced as English t	tiene	A strongly articulated t with a puff of air after the t, as in tinny and teeny
7k	r	83	Spanish flapped r in fr cluster (Should sound a little like the d in f'deeo)	frío	The English "growled" r as in free or freeze
8l	r	91	Spanish flapped r between vowels (Should sound a little like the t in jot a note)	cuchara	The English "growled" r as in jar o' (pickled)

TABLE 133 continued

Number of Item	Feature Tested	Percentage of Students Answering Correctly	Description of Feature Tested	Stimulus Word	Probable Error
9m	k	79	Unaspirated k, which is not as breathy or as forcefully pronounced as English k	come	A strongly articulated k with a puff of air after the k as in comb
10n	ƀ	46	Fricative or soft b	tiene bastante	The stop or hard b as in Boston or boss
11o	s	71	Voiced s (that is, z) before g: ezgordo	es gordo	An English s as in It's Gordon
11p	o	91	The simple or pure vowel o	gordo	The English diphthong as in dough or Fido
12q	u	85	Spanish u	pluma	Any tendency to pronounce the English diphthong of plume or mutual
13r	r	71	Spanish flapped r in rk cluster (Should sound a little like buttercup)	mujer canta	The English "growled" r as in haircut
14s	Synalepha	22	The loss of a syllable at a word boundary when one word ends and the next begins with the same vowel sound: duerme en becomes duermen	duerme en	Any break which preserves two sounds in two syllables

TABLE 133 continued

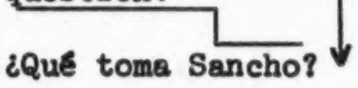
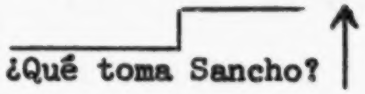
Number of Item	Feature Tested	Percentage of Students Answering Correctly	Description of Feature Tested	Stimulus Word	Probable Error
15t	Intonation	26	Pattern in an information question:  ¿Qué toma Sancho?	¿Qué toma Sancho?	Intonation of a yes/no question:  ¿Qué toma Sancho?

TABLE 134

PERCENTAGE OF STUDENTS CORRECTLY ANSWERING EACH PRONUNCIATION (ORAL READING) ITEM TESTED AT THE END OF THE SPA COURSE, GIVING DESCRIPTION OF FEATURE TESTED AND PROBABLE ERROR*

Number of Item	Feature Tested	Percentage of Students Answering Correctly	Description of Feature Tested	Stimulus Word	Probable Error
1	s	38	Voiced s (that is, z) before n: lazniñas	las niñas	An English s as in less need or Glassner
2	d	50	Stop or hard d	de	Fricative or soft d as the th sound in they
3	k	85	Unaspirated k, which is not as breathy or forcefully pronounced as English k	casa	A strongly articulated k with a puff of air after the k as in cost or causing
4	a	67	Unstressed a, which retains the quality of a as in mano, even when unstressed	casa	The English obscured vowel as in sofa or taxes
5	e	53	The simple or pure vowel e	de	The English diphthong as in day or they
6	Liaison	71	The linking of the final consonant of one word with the initial vowel of the next la socho	las ocho	Any break which suggests the pronunciation las ocho

* The features of phonology are listed in the order in which they were presented to students on the final test. The required student response was always a brief Spanish utterance. Only the specific feature listed was evaluated.

TABLE 134 continued

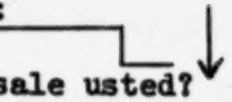
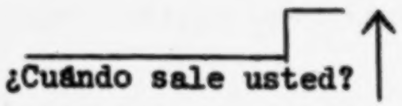
Number of Item	Feature Tested	Percentage of Students Answering Correctly	Description of Feature Tested	Stimulus Word	Probable Error
7	o	71	The simple or pure vowel o	ocho	The English diphthong as in show or know
8	Intonation	46	Pattern in an information question:  ¿Cuándo sale usted?	¿Cuándo sale usted?	Intonation of a yes/no question:  ¿Cuándo sale usted?
9	wa	93	Two vowel letters (ua) pronounced in a single syllable. Cuando is two syllables: Cuan-do	cuando	A pronunciation that would add a third syllable: cu-an-do
10	đ	85	Fricative or soft d (Should sound a little like the th of tithe)	usted	The stop or hard d as in instead or said
11	o	83	The simple or pure vowel o	yo	The English diphthong as in so or know
12	g	36	Fricative or soft g	salgo	The stop or hard g as in saga or amalgum
13	ye	79	Two vowel sounds (ie) pronounced in a single syllable. Siete is two syllables: Sie-te	siete	In English the most similar vowels are pronounced in separate syllables. Siete would be three syllables: si-e-te

TABLE 134 continued

Number of Item	Feature Tested	Percentage of Students Answering Correctly	Description of Feature Tested	Stimulus Word	Probable Error
14	p	73	Unaspirated p, which is not as breathy or as forcefully pronounced as English p	papa	A strongly articulated p, with a puff of air after the p, as in pop or pappa
15	Vowel Reduction	44	A change of vowels between words, such that au (in two syllables) becomes au or even u (in one)	la una	Any break which preserves separate vowel sounds in separate syllables

TABLE 135

PERCENTAGE OF STUDENTS CORRECTLY ANSWERING EACH READING COMPREHENSION VOCABULARY ITEM TESTED AT END OF COURSE IN SPA CLASSES, SHOWING THE CONTEXT IN WHICH EACH RESPONSE WAS SOUGHT*

Number of Item	Item	Percentage of Students Answering Correctly	Number of Item	Item	Percentage of Students Answering Correctly
1	Es un vaso.	90	16	Es mi vino.	98
2	Son hermanos.	98	17	Es la puerta.	79
3	Es su piña.	73	18	Mi hermano es flaco.	96
4	Son tres mesas.	96	19	Tengo un plato.	96
5	El pez es gordo.	86	20	Es mi mono.	98
6	Tengo una cuchara.	73	21	Es un pozo.	94
7	Es mi papá.	69	22	Toma café.	100
8	Tiene sed.	84	23	Es una casa española.	98
9	Es mi niño.	98	24	Sí, es mi pipa.	90
10	Tengo sueño.	88	25	Sí, fuma.	98
11	Es un pino.	81	26	Es el pan.	92
12	Es un oso.	98	27	Hay dos cuchillos en la mesa.	67
13	Tienen una muñeca.	94	28	Sancho come el queso.	96
14	Sí, duerme.	92			
15	Sancho tiene una paloma.	100			

*Vocabulary items are underlined. The Spanish utterances are listed in the order in which they were presented to students on the final tests. The required student response was a brief Spanish utterance. Only the underlined words were scored.

TABLE 135 Continued

Number of Item	Item	Percentage of Students Answering Correctly
29	Es una casa.	98
30	Hay una pecera en la mesa.	62
31	Son altos.	90
32	Tengo hambre.	86
33	Hay una mesa en la cocina.	94
34	Es un mozo.	90
35	Tomo té.	100
36	Es una cama.	96
37	Mi papá es guapo.	88
38	Sancho toma leche.	98
39	Es mi mamá.	98
40	Corta el pan.	92
41	Es una mano.	92
42	La niña pone la taza en la mesa.	90
43	Es carne.	84
44	Mi casa es grande.	96
45	Es una taza.	88
46	Sancho entra en la cocina.	98
47	Tengo mucho dinero.	90
48	Mi mamá es baja.	81
49	Tengo un plato de sopa.	90
50	Mi mono es gordo.	92
51	Es un nido.	92
52	Salen de la casa.	79
53	La cama es pequeña.	03
54	Hay una mesa en el dormitorio.	01
55	¿Por qué come usted?	79
56	¿En qué parte de la casa hay una mesa?	84
57	¿Qué hacen las niñas?	92
58	Mi hermano sale conmigo.	52

TABLE 135 Continued

Number of Item	Item	Percentage of Students Answering Correctly	Number of Item	Item	Percentage of Students Answering Correctly
59	No, pero tiene dos hermanos.	62	75	¿Qué toma su mamá?	73
60	Número dos.	96	76	¿Cuándo come usted?	71
61	Sí, es un oso.	90	77	Come porque tiene hambre.	73
62	¿Es su cama?	86	78	Número cuatro.	100
63	Tengo una cama.	81	79	¿Qué hay en la casa?	77
64	Es mi niño.	96	80	Gracias.	96
65	Es otra paloma.	83	81	Número tres.	100
66	¿De quién es la muñeca?	64	82	Mamá o papá.	94
67	En la casa.	100	83	Número cinco.	98
68	Usted tiene un oso.	92	84	Esta tarde no quiero comer.	83
69	¿Cuántos niños hay en la casa?	88	85	Son dos niñas.	84
70	¿Qué es?	77	86	Es de Francia.	98
71	Salgo con mi oso.	86	87	Es francés.	81
72	Número uno.	100	88	Papá y mamá.	96
73	Mi papá come.	88	89	Es de España.	92
74	Número seis.	98	90	¿Dónde come el oso?	60

TABLE 135 Continued

Number of Item	Item	Percentage of Students Answering Correctly	Number of Item	Item	Percentage of Students Answering Correctly
91	Hay dos pollitos en la mesa.	83	108	Es una camisa.	88
92	Un alumno duerme.	84	109	Los hombres escriben.	96
93	Lleva una camisa.	79	110	Es un animal.	100
94	Es una pera.	98	111	Lee una carta.	79
95	Son dos patos.	67	112	Es el profesor.	96
96	El hombre duerme.	92	113	Quieren comer.	88
97	Es una pipa negra.	100	114	Es una blusa.	98
98	Tiene una carta.	86	115	Lleva una falda.	73
99	Tiene un hijo.	88	116	La muchacha es guapa.	86
100	Escucha la música.	92	117	Es una clase.	98
101	Lleva un abrigo.	90	118	Tiene frío.	100
102	Es mi escuela.	96	119	Los pantalones son negros.	100
103	El oso es blanco.	84	120	Toca muy bien.	73
104	Tiene un huevo.	84	121	Prefieren bailar.	81
105	Es un elefante.	100	122	Es una fruta.	98
106	Es una pluma.	86	123	Toca la guitarra.	96
107	Corta el melón.	98	124	Es mi familia.	98

TABLE 135 Continued

Number of Item	Item	Percentage of Students Answering Correctly	Number of Item	Item	Percentage of Students Answering Correctly
125	Tiene una peseta.	58	142	Usted es muy simpática.	88
126	Es fuerte.	90	143	Número trescientos.	94
127	Son zapatos negros.	88	144	Susana canta bien.	92
128	La mujer es alta.	84	145	¿Cuánto vale esa blusa?	79
129	Es un libro.	96	146	Tengo medio queso.	79
130	Es un piano.	100	147	Tengo que escribir una carta.	88
131	¡Adios!	96	148	Número trece.	67
132	Tiene un amigo.	94	149	Llegamos a las ocho.	56
133	El papel es blanco.	90	150	Número once.	90
134	Toca la campana.	79	151	Sí, con mucho gusto.	83
135	¿Qué hora es?	90	152	¿Quién tiene más dinero?	88
136	Tiene dinero.	84	153	Hay treinta minutos.	92
137	Escuchamos la música.	71	154	Número doce.	84
138	Es un gato.	96	155	Creo que Felipe lo tiene.	71
139	Es una persona.	96			
140	Nuestra casa es pequeña.	58			
141	Quiero mi abrigo.	67			

TABLE 135 Continued

Number of Item	Item	Percentage of Students Answering Correctly
156	Número setenta.	88
157	¿Qué quiere decir "alumno"?	64
158	El pez es muy pequeño.	90
159	¿A qué hora estudia usted?	79
160	Hay sesenta segundos.	86
161	¿Prefiere usted bailar?	84
162	Es débil.	81
163	Quiero escuchar una canción.	79
164	La niña tiene un oso también.	83
165	¿De qué color es el cuchillo?	96
166	Somos hermanos.	79
167	¿Qué quiere compar?	69
168	Es fácil.	75
169	Esta noche no quiero comer.	79
170	Como más que ella.	62
171	No tiene prisa.	60
172	No tengo bastante dinero.	69
173	Número cien.	90
174	¿Cuántos son nueve menos uno?	94
175	Quiero cantar.	81
176	¿Qué dice Tomás?	58
177	¿Quién es este muchacho?	79
178	Estudio el español.	88
179	Es necesario comer.	90
180	La blusa es verde.	90
181	Estudio la historia.	96
182	Número cincuenta.	83
183	Tiene cinco años.	90
184	¿Quiénes son?	43
185	No sé si es más alta.	37
186	Come más que ellos.	71
187	Estudio el inglés.	94

TABLE 135 Continued

Number of Item	Item	Percentage of Students Answering Correctly	Number of Item	Item	Percentage of Students Answering Correctly
188	De nada.	92	203	La casa es azul.	94
189	Número ocho.	94	204	Número nueve.	100
190	Buenas tardes.	75	205	Hay tres cosas en la mesa.	92
191	El oso es amarillo.	94	206	¿Quiénes son estas muchachas?	67
192	Enseña el español.	79	207	Número cuarenta.	83
193	Felipe come poco.	79	208	El gato no puede salir.	60
194	Número siete.	94	209	Número diez.	98
195	Sale de la casa temprano.	67	210	Ese plato es negro.	86
196	Soy más fuerte que él.	67	211	Está bien.	73
197	¡Ay perdón!	15	212	Aprendemos mucho.	67
198	Número catorce.	90	213	No sé si es Sancho.	81
199	Esta mañana no quiero comer.	09	214	Felipe llega tarde.	83
200	Número quince.	88			
201	¿Saben ustedes muchas cosas?	73			
202	Número noventa.	84			

TABLE 136

PERCENTAGE OF STUDENTS CORRECTLY ANSWERING EACH READING COMPREHENSION GRAMMAR ITEM TESTED AT THE END OF THE SPA COURSE, WITH A DESCRIPTION OF EACH FEATURE TESTED*

Number of Item	Item	Description of Feature Tested	Code†	Percentage of Students Answering Correctly
1	¿Qué es?	Irregular form, verb "ser," 3rd person singular, present tense	Mvi(7)	98
2	Tengo un oso.	Irregular form, verb "tener," 1st person singular, present tense	Mvi(4)	81
3	Los niños no fuman una pipa.	Negative pattern: noun phrase as subject, negative particle, noun phrase as direct object	N(5)	90
4	Duerme con una muñeca.	Noun phrase as subject (unexpressed), intransitive verb, adverb	2a(u)	75
5	Son mis pipas.	Noun phrase as subject (unexpressed), verb "ser," noun phrase as predicate nominative	1a(u)	94
6	Es su mono.	Possessive adjective, 3rd person singular with singular noun (masculine or feminine)	Ma(8)	77
7	Tiene el oso y el mono.	Noun phrase as subject (unexpressed), transitive verb, noun phrase as direct object	3a(u)	94

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* In items testing morphology, the feature tested is underlined. The items are listed in the order in which they were presented to students on the final test. The response alternatives were printed English sentences.

† The coding system was designed as an aid in referring to identical features across tests. The coding system applies to all three courses. An explanation of the system is given in a note at the end of Table 115, p. 218.

TABLE 136 continued

Number of Item	Item	Description of Feature Tested	Code	Percentage of Students Answering Correctly
8	La niña guapa entra en la casa.	Position of descriptive adjective following noun	NSP(2)	88
9	Sale de la casa.	Regular form, verb "salir," 3rd person singular, present tense	Mvr(7)	37
10	Fuma una pipa.	Regular form, "ar" verb, 3rd person singular, present tense	Mvr(3)	41
11	¿De dónde es Elena?	Interrogative pattern (information question): interrogative phrase, verb "ser," noun phrase as subject	?(7)	71
12	¿Tiene Sancho una pipa?	Interrogative pattern (yes-no question): transitive verb, noun phrase as subject, noun phrase as direct object	?(4)	86
13	¿Qué pone la niña en la mesa?	Interrogative pattern (information question): interrogative word, transitive verb, noun phrase as subject	?(5)	86
14	¿Qué son?	Irregular form, verb "ser," 3rd person plural, present tense	Mvi(9)	66
15	Es mi hermano.	Masculine singular noun with "o" ending	Mn(1)	90
16	Los niños tienen mi oso.	Noun phrase as subject, transitive verb, noun phrase as direct object	3a	96
17	Soy flaco.	Irregular form, verb "ser," 1st person singular, present tense	Mvi(5)	47

TABLE 136 continued

Number of Items	Item	Description of Feature Tested	Code[†]	Percentage of Students Answering Correctly
18	El oso es gordo.	Noun phrase as subject, verb "ser," predicate adjective	1b	98
19	Comen el queso.	Regular form, "er" verb, 3rd person plural, present tense	Mvr(10)	49
20	No es la casa de los osos.	Negative pattern: noun phrase as subject (unexpressed), negative particle, verb "ser," noun phrase as predicate nominative	N(6)	64
21	¿De quiénes son las pipas?	"De" + "quien" to convey "whose?"	NSP(6)	66
22	Sí, es mi mozo.	Possessive adjective, 1st person singular with singular noun (masculine or feminine)	Ma(6)	96
23	Tiene las tazas.	Plural article and plural noun signals	Mn(4)	84
24	¿Dónde duerme la paloma?	Interrogative pattern (information question): interrogative word, intransitive verb, noun phrase as subject	?(6)	83
25	Es la muñeca de la niña.	Use of "de" to show possession	NSP(1)	79

[†] The coding system was designed as an aid in referring to identical features across tests. The coding system applies to all three courses. An explanation of the system is given in a note at the end of Table 115, p. 218.

TABLE 136 continued

Number of Item	Item	Description of Feature Tested	Code	Percentage of Students Answering Correctly
26	No, los niños no toman café.	Negative pattern: noun phrase subject, negative particle, transitive verb, noun phrase as direct object (in sentence following the utterance "No")	N(11)	88
27	¿Es gordo su mono?	Interrogative pattern (yes-no question): verb "ser," predicate adjective, noun phrase as subject	?(8)	83
28	Hay un oso en la casa.	Verb "hay," noun phrase as subject, adverb	6a	90
29	Mamá lo quiere.	Direct object pronoun "la," singular masculine	Mp(2)	30
30	No sé si es Felipe.	Irregular form, verb "saber," 1st person singular, present tense	Mvi(2)	62
31	Nuestros amigos son altos.	Possessive adjective, 1st person plural, with plural noun	Ma(17)	62
32	¿Quiere usted comprarlo?	Interrogative pattern: transitive verb, noun phrase as subject, transitive verb as complement, noun phrase as direct object (pronoun)	?(13)	64
33	Escuchamos la música.	Regular form, "ar" verb, 1st person plural, present tense	Mvr(4)	35
34	Mis amigos españoles no leen el inglés.	Negative pattern: noun phrase as subject (modified), negative particle, transitive verb, noun phrase as direct object	N(4)	84

TABLE 136 continued

Number of Item	Item	Description of Feature Tested	Code†	Percentage of Students Answering Correctly
35	Digo, "Adiós, profesor."	Irregular form, verb "decir," 1st person singular, present tense	Mvi(3)	60
36	Las que comen mucho son gordas.	Nominalized definite article "las" modified by a phrase ("Las que" to convey "the ones who")	NSP(7)	83
37	Lo enseña a su hijo.	Noun phrase as subject (unexpressed), noun phrase as direct object (pronoun), transitive verb, relator word, noun phrase as indirect object	4a'	62
38	Sancho tiene más dinero que Felipe.	Comparison of inequality, ("más que" to convey "more than")	NSP(8)	88
39	No cantamos en la clase de Español.	Negative pattern: noun phrase as subject (unexpressed), negative particle, intransitive verb, adverb	N(6)'	75
40	Es un gatito.	Diminutive suffix "it," plus masculine suffix "o"	Mn(5)	88
41	¿Quiere escribir Tomás?	Interrogative pattern: transitive verb with verb infinitive as complement, noun phrase as subject	?(11)	69
42	Canto una canción.	Regular form, "ar" verb, 1st person singular, present tense	Mvr(1)	66

† The coding system was designed as an aid in referring to identical features across tests. The coding system applies to all three courses. An explanation of the system is given in a note at the end of Table 115, p. 218.

TABLE 136 continued

Number of Item	Item	Description of Feature Tested	Code	Percentage of Students Answering Correctly
43	¿Tiene usted que estudiar?	Interrogative pattern (yes-no question): transitive verb, noun phrase as subject, relator word, infinitive of verb	?(12)	39
44	No lo creo.	Negative pattern: noun phrase as subject (unexpressed), negative particle, noun phrase as direct object (pronoun), transitive verb	N(10)	69
45	El niño tiene que salir.	Noun phrase as subject, transitive verb, relator word, infinitive of verb	5g	71
46	Teresa las tiene.	Direct object pronoun, feminine plural	Mp(4)	60
47	El papá lee un libro a su hija.	Noun phrase as subject, transitive verb, noun phrase as direct object, relator word, noun phrase as indirect object	4a	79
48	Quiero comer.	Noun phrase as subject (unexpressed), transitive verb with verb infinitive as complement	5f(u)	77
49	Somos hermanos.	Irregular form, verb "ser," 1st person plural, present tense	Mvi(8)	71
50	Tengo que estudiar.	Noun phrase as subject (unexpressed), transitive verb, relator word, infinitive of verb	5g(u)	81
51	Sí, queremos salir.	Regular form, verb "querer," 1st person plural, present tense	Mvr'(13)	35

TABLE 136 continued

Number of Item	Item	Description of Feature Tested	Code†	Percentage of Students Answering Correctly
52	Los niños cantan bien.	Noun phrase as subject, intransitive verb, adverb	2a	88
53	Papá lo come.	Noun phrase as subject, noun phrase as direct object (pronoun), transitive verb	3aa	49
54	Salimos esta noche.	Regular form, verb "salir," 1st person plural, present tense	Mvr(9)	56
55	Las niñas quieren cantar.	Noun phrase as subject, transitive verb with verb infinitive as complement	5f	71
56	Llevan pantalones.	Regular form, "ar" verb, 3rd person plural, present tense	Mvr(5)	58

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† The coding system was designed as an aid in referring to identical features across tests. The coding system applies to all three courses. An explanation of the system is given in a note at the end of Table 115, p. 218.

TABLE 137

PERCENTAGE OF STUDENTS CORRECTLY ANSWERING EACH READING COMPREHENSION GRAMMAR TRANSFER ITEM TESTED AT THE END OF THE SPA COURSE, WITH A DESCRIPTION OF EACH FEATURE TESTED*

Number of Item	Item	Description of Feature Tested	Code†	Percentage of Students Answering Correctly
1	Hay un mono en el nido.	Verb "hay," noun phrase as subject, adverb	6a	86
2	¿Cuánto peces cortan los niños?	Interrogative pattern (information question): interrogative word, transitive verb, noun phrase as subject	?(5)	69
3	Come el pan de la paloma.	Use of "de" to show possession	NSP(1)	69
4	No es la cama de la muñeca.	Negative pattern: noun phrase as subject (unexpressed), negative particle, verb "ser," noun phrase as predicate nominative	N(6)	63
5	La muñeca toma café.	Noun phrase as subject, transitive verb, noun phrase as direct object	3a	96
6	¿Tiene el oso una muñeca?	Interrogative pattern (yes-no question): verb transitive, noun phrase subject, noun phrase as direct object	?(4)	80
7	Los monos salen mucho.	Noun phrase as subject, intransitive verb, adverb	2a	88

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* In items testing morphology, the feature tested is underlined. The items are listed in the order in which they were presented to students on the final test. The response alternatives were printed English sentences.

† The coding system was designed as an aid in referring to identical features across tests. The coding system applies to all three courses. An explanation of the system is given in a note at the end of Table 115, p. 218.

TABLE 137 continued

Number of Item	Item	Description of Feature Tested	Code	Percentage of Students Answering Correctly
8	Es el nido alto.	Noun phrase as subject (unexpressed), verb "ser," noun phrase as predicate nominative	1a(u)	88
9	¿De dónde es el mono?	Interrogative pattern (information question): interrogative phrase, verb "ser," noun phrase as subject	?(7)	63
10	¿Es española su paloma?	Interrogative pattern (yes-no question): verb "ser," predicate adjective noun phrase as subject	?(8)	73
11	¿Por qué entra el mozo en la cocina?	Interrogative pattern (information question): interrogative word, intransitive verb, noun phrase as subject	?(6)	61
12	¿De quién es el vino?	"De quién" to convey "whose"	NSP(6)	73
13	La cocina es grande.	Noun phrase as subject, verb "ser," predicate adjective	1b	90
14	Sale de la clase con el gato.	Noun phrase as subject (unexpressed), intransitive verb, adverb	2a(u)	80
15	El pez no corta el pan.	Negative pattern: noun phrase as subject, negative particle, noun phrase as direct object	N(5)	88
16	El oso gordo come una paloma.	Position of descriptive adjective following noun	NSP(2)	80

TABLE 137 continued

Number of Item	Item	Description of Feature Tested	Code[†]	Percentage of Students Answering Correctly
17	Tienen dos peceras y un pez.	Noun phrase as subject (unexpressed), transitive verb, noun phrase as direct object	3a(u)	57
18	No, el mozo no come queso.	Negative pattern: noun phrase as subject, negative particle, transitive verb, noun phrase as direct object (in sentence following the utterance "No")	N(11)	86
19	El pez quiere leer.	Noun phrase as subject, transitive verb with verb infinitive as complement	5f	84
20	Los que llevan camisas son hermanos.	Nominalized definite article "los" modified by a phrase ("Los que" to convey "the ones who")	NSP(7)	61
21	Preferimos tocar.	Noun phrase as subject (unexpressed), transitive verb with verb infinitive as complement	5f(u)	88
22	La cantan al oso.	Noun phrase as subject (unexpressed), noun phrase as direct object (pronoun), transitive verb, noun phrase as indirect object	4a'	44
23	El oso lo estudia.	Noun phrase as subject, noun phrase as direct object (pronoun), transitive verb	3aa	80

[†] The coding system was designed as an aid in referring to identical features across tests. The coding system applies to all three courses. An explanation of the system is given in a note at the end of Table 115, p. 218.

TABLE 137 continued

Number of Item	Item	Description of Feature Tested	Code	Percentage of Students Answering Correctly
24	Tienen que escuchar.	Noun phrase as subject, (unexpressed), transitive verb, relator word, infinitive of verb	5g(u)	69
25	El mono canta la canción al niño.	Noun phrase as subject, transitive verb, noun phrase as direct object, relator word, noun phrase as indirect object	4a	82
26	No escribe la historia en la escuela.	Negative pattern: noun phrase as subject (unexpressed), negative particle, transitive verb, noun phrase as direct object	N(6)'	53
27	No lo hace.	Negative pattern: noun phrase as subject (unexpressed), negative particle, noun phrase as direct object (pronoun), transitive verb	N(10)	46
28	¿Quiere el gato enseñarlo?	Interrogative pattern: transitive verb, noun phrase as subject, transitive verb as complement, noun phrase as direct object (pronoun)	?(13)	40
29	¿Quieren cantar los elefantes?	Interrogative pattern: transitive verb with verb infinitive as complement, noun phrase as subject	?(11)	53
30	El mono tiene que estudiar.	Noun phrase as subject, transitive verb, relator word, infinitive of verb	5g	78

TABLE 137 continued

Number of Item	Item	Description of Feature Tested	Code[†]	Percentage Of Students Answering Correctly
31	El gato amarillo no come peces.	Negative pattern: noun phrase as subject (modified), negative particle, transitive verb, noun phrase as direct object	N(4)	82
32	¿Tiene qué bailar la paloma?	Interrogative pattern: transitive verb, relator word, infinitive of verb, noun phrase as subject	?(12)	48
33	Los osos compran más leche que los gatos.	Comparison of inequality, ("más que" to convey "more than")	NSP(8)	63

[†] The coding system was designed as an aid in referring to identical features across tests. The coding system applies to all three courses. An explanation of the system is given in a note at the end of Table 115, p. 218.

TABLE 138

PERCENTAGE OF STUDENTS CORRECTLY ANSWERING EACH WRITING VOCABULARY AND SPELLING ITEM TESTED AT THE END OF THE SPA COURSE, SHOWING THE CONTEXT IN WHICH EACH RESPONSE WAS SOUGHT[*]

Number of Item	Item	Percentage of Students[†] Answering Correctly		Number of Item	Item	Percentage of Students[†] Answering Correctly	
		Vocabulary	Spelling			Vocabulary	Spelling
1	Es una mesa.	95	89	16	Es un mono.	73	67
2	Es una piña.	83	59	17	Es un pino.	69	46
3	Es un muchacho (niño).	95	71	18	Es un oso.	95	95
4	Es un vaso.	79	67	19	Es una muñeca.	83	53
5	Es un pez.	73	55	20	Es una paloma.	81	79
6	Es un cuchillo.	71	59	21	Es una mano.	73	67
7	Es una taza.	57	48	22	Es una casa.	89	89
8	Es una pecera.	32	10	23	Es una cuchara.	59	30
9	Es un nido.	59	34	24	Es mi hermano.	69	51
10	Es una cama.	75	69	25	Es la cocina.	67	57
11	Es un dormitorio.	73	30	26	Es el mozo.	85	79
12	Es un pozo.	26	20	27	Es el queso.	53	53
13	Es una pipa.	97	95	28	Es el pan.	91	89
14	Es una puerta	32	16	29	Es el café.	89	83
15	Es un plato.	91	87	30	Es el vino.	79	69

[*] The items are listed in the order in which they appeared. The written response required of the student was the underlined word(s) in the item. Words in parentheses were acceptable substitutes. Words not underlined were provided in the answer booklet.

[†] Items were scored twice, once for the correctness of the vocabulary element and then again for the correctness of spelling.

TABLE 138 continued

Number of Item	Item	Percentage of Students Answering Correctly		Number of Item	Item	Percentage of Students Answering Correctly	
		Vocabulary	Spelling			Vocabulary	Spelling
31	Es la mamá.	100	100	52	Es francés.	59	36
32	Es la leche.	97	85	53	El tiene un vaso.	75	73
33	Es la sopa.	91	65				
34	Es la carne.	57	40	54	El tiene hambre.	8	6
35	Es el té.	81	77	55	El corta el pan.	40	30
36	Es el papá.	97	95	56	El pone el vaso en la mesa.	55	48
37	Es grande.	85	83				
38	Es gordo.	81	71	57	Número uno.	95	91
39	Es español.	91	36	58	¿Qué es?	85	85
40	Es flaco.	89	85	59	Hay leche.	30	30
41	Es alto.	85	81	60	¿Cuántos son?	61	44
42	Es pequeño.	65	32	61	Quiere otro vaso	40	32
43	Es bajo.	57	55	62	¿De quién es?	4	4
44	Es guapo.	79	67	63	En la casa.	83	81
45	El tiene sed.	6	4	64	Es mi mamá.	91	85
46	El sale.	63	61	65	¿Qué hace?	28	26
47	El fuma.	87	85	66	Con el oso.	55	55
48	El entra.	71	65	67	Yo tengo un vaso.	73	73
49	El duerme.	71	40	68	No, pero es grande.	44	40
50	El come.	75	73				
51	El toma café.	81	75	69	Número seis.	87	69

TABLE 138 continued

Number of Item	Item	Percentage of Students† Answering Correctly		Number of Item	Item	Percentage of Students† Answering Correctly	
		Vocabulary	Spelling			Vocabulary	Spelling
70	Es su mono.	67	67	89	Es una persona.	95	87
71	El tiene sueño.	4	2	90	Es una carta.	38	38
72	Número dos.	97	93	91	Es un hombre (señor).	69	57
73	Gracias.	85	61				
74	Número tres.	97	87	92	Es un pato.	36	34
75	Mamá o papá.	93	93	93	Es una pera.	53	51
76	¿Cuándo come usted?	24	24	94	Es un alumno.	75	65
77	Porque es Felipe.	67	59	95	Es un pollito.	28	22
78	Quiero mucho.	75	75	96	Es una pluma.	75	71
79	Número cuatro.	87	63	97	Es un elefante.	95	67
80	Mamá y papá.	79	79	98	Es un huevo.	34	10
81	Es de España.	46	26	99	Es una escuela.	46	34
82	¿Dónde come?	40	40	100	Es un abrigo.	65	55
83	Número cinco.	83	81	101	Es un amigo.	83	81
84	Es esta tarde.	36	32	102	Es una blusa.	95	83
85	¿Qué son?	44	44	103	Es un minuto.	69	42
86	Es de Francia.	53	30	104	Es un animal.	97	93
87	¿Por qué?	65	61	105	Es una camisa.	73	71
88	Sale conmigo.	51	44	106	Es un melón.	89	75

† Items were scored twice, once for the correctness of the vocabulary element and then again for the correctness of spelling.

TABLE 138 continued

Number of Item	Item	Percentage of Students Answering Correctly		Number of Item	Item	Percentage of Students Answering Correctly	
		Vocabulary	Spelling			Vocabulary	Spelling
107	Es una fruta.	91	48	126	Es la historia.	87	73
108	Es una clase.	95	77	127	Es negro.	97	91
109	Es una muchacha (niña).	91	73	128	Es blanco.	91	83
110	Es una falda.	38	36	129	Es necesario.	51	6
111	Es un piano.	89	81	130	Es azul.	87	85
112	Es un libro.	75	63	131	Es fácil.	40	34
113	Es una mujer (señora).	59	46	132	Es verde.	61	55
114	Es un zapato.	67	55	133	Es amarillo.	87	63
115	Es una familia.	73	28	134	Es simpático.	75	65
116	Es una guitarra.	85	53	135	Es fuerte.	57	48
117	Es un gato.	89	85	136	Es débil.	36	26
118	Es una hora.	53	48	137	El escribe.	48	38
119	Es una campana.	51	38	138	El lee.	61	61
120	Es un segundo.	38	24	139	El lleva un abrigo.	59	40
121	Es mi hijo.	67	63				
122	Es mi profesor (profesora).	87	67	140	El escucha.	34	32
123	Es el papel.	75	75	141	El toca el piano.	61	59
124	Es la música.	95	85	142	Quiero comer.	26	26
125	Es el dinero.	67	57	143	El llega.	30	28

TABLE 138 continued

Number of Item	Item	Percentage of Students[†] Answering Correctly		Number of Item	Item	Percentage of Students[†] Answering Correctly	
		Vocabulary	Spelling			Vocabulary	Spelling
144	El prefiere bailar.	55	16	159	Nosotros somos hermanos.	2	2
145	Yo creo que es Felipe.	24	22	160	Es medio queso.	55	51
146	El enseña el español.	59	32	161	¿Cuánto vale?	18	10
147	El sabe muchas cosas.	18	18	162	Canta bien.	69	67
148	El aprende el español.	32	28	163	Quiero más.	53	46
149	El dice muchas cosas.	44	40	164	Yo tengo que escribir.	6	4
150	Yo estudio.	53	44	165	Estudio el inglés.	69	53
151	El puede salir.	12	12				
152	Yo sé.	18	18	166	Llega tarde.	46	40
153	Son los pantalones.	69	48	167	Sale temprano.	40	36
154	El quiere el libro.	38	30	168	Quiero comprar.	18	12
155	Buenas tardes.	63	28	169	Número trescientos.	71	42
156	Adiós.	87	79				
157	De nada.	59	46	170	Sí, con mucho gusto.	28	28
158	El tiene frío.	6	6				

[†] Items were scored twice, once for the correctness of the vocabulary element and then again for the correctness of spelling.

TABLE 138 continued

Number of Item	Item	Percentage of Students Answering Correctly		Number of Item	Item	Percentage of Students Answering Correctly	
		Vocabulary	Spelling			Vocabulary	Spelling
171	¿A qué hora estudia usted?	18	18	189	¿Cuántos son nueve menos uno?	71	42
172	Número doce.	81	57				
173	Es muy grande.	46	46	190	Número cien (ciento).	71	69
174	Número once.	75	71				
175	¿Qué quiere decir?	14	20	191	Felipe tiene bastante.	22	18
176	Como más que ella.	18	22	192	El tiene prisa.	6	6
177	Número trece.	71	36	193	¿Son ellos?	2	2
178	Esta noche.	20	22	194	Sí, si canta María.	16	16
179	Número setenta.	38	38				
180	Quiero cantar.	24	28	195	¿Quién es?	42	38
181	Número ocho.	91	85	196	Número cincuenta	36	24
182	Esta mañana.	36	24	197	El tiene cinco años.	10	8
183	Número noventa.	63	46				
184	Perdón.	40	26	198	Come poco.	38	38
185	¿De qué color?	24	24	199	Número siete.	85	65
186	Número quince.	53	34	200	Quiero bailar.	46	36
187	Ella canta también.	53	46	201	Ese plato es negro.	22	22
188	Este muchacho.	42	36	202	Número catorce.	55	22

TABLE 138 continued

Number of Item	Item	Percentage of Students[†] Answering Correctly		Number of Item	Item	Percentage of Students[†] Answering Correctly	
		Vocabulary	Spelling			Vocabulary	Spelling
203	Número diez.	83	73	207	Número nueve.	85	42
204	¿Quiénes son estas muchachas?	10	10	208	Está bien.	10	10
205	Número cuarenta.	40	12	209	¿Es él?	44	42
206	Hay tres cosas.	55	51				

[†] Items were scored twice, once for the correctness of the vocabulary element and then again for the correctness of spelling.

TABLE 139

PERCENTAGE OF STUDENTS CORRECTLY ANSWERING EACH WRITING GRAMMAR ITEM TESTED AT THE END OF THE SPA COURSE, SHOWING RESULTS OF SCORING ON DISCRETE ELEMENTS AND ON ENTIRE UTTERANCE*

Number of Item	Item	Description of Feature Tested	Code†	Percentage of Students Answering Correctly	
				Discrete Element	Entire Utterance
1	Un gato es un animal.	Noun phrase as subject, verb "ser," noun phrase as predicate nominative	1a	87	71
2	Es la una.	Definite article plus number in reference to telling time	NSP(4)	57	51
3	Mi casa es pequeña.	Noun phrase as subject, verb "ser," predicate adjective	1b	91	85
4	Sancho compra un libro.	Noun phrase as subject, transitive verb, noun phrase as direct object	3a	51	46
5	Quiero aprender el español.	Definite article with name of language	NSP(9)	10	2
6	No lo tengo.	Negative pattern: noun phrase as subject (unexpressed), negative particle, noun phrase as direct object (pronoun), transitive verb	N(10)	18	14
7	No, es el oso del muchacho.	Contraction "de" + "el" to "del"	NSP(10)	6	6

* Items are listed in the order in which they were presented to students on the final test. In scoring on discrete elements, only errors on the point being tested caused loss of credit. In scoring on the entire utterance, the utterance had to be completely free of error for the response to be marked correct. A complete listing of the elements required in each student response is presented in Table 129 , p. 302.

† The coding system was designed as an aid in referring to identical features across tests. The coding system applies to all three courses. An explanation of the system is given in a note at the end of Table 115, p. 218.

TABLE 139 continued

Number of Item	Item	Description of Feature Tested	Code	Percentage of Students Answering Correctly	
				Discrete Element	Entire Utterance
8	Sí, Sancho lo lleva.	Noun phrase as subject, noun phrase as direct object (pronoun), transitive verb	3aa	22	18
9	¿Tiene María un abrigo azul?	Position of descriptive adjective following noun	NSP(2)	36	10
10	(La muñeca) duerme en la cama.	Noun phrase as subject, intransitive verb, adverb	2a	46	44
11	Sí, las que comen muchos son gordas.	Nominalized definite article "las" modified by a phrase ("las que" to convey "the ones who")	NSP(7)	4	4
12	Sancho tiene más dinero que María	Comparison of inequality, "más" plus "que" to convey "more than"	NSP(8)	34	34
13	El profesor enseña una cancíon a los alumnos.	Noun phrase as subject, transitive verb, noun phrase as direct object, relator word, noun phrase as indirect object	4a	34	26
14	No, la mamá lee al niño.	Contraction of "a" + "el" to "al"	NSP(11)	2	2
15	(Los muchachos) quieren bailar.	Noun phrase as subject, transitive verb with verb infinitive as complement	5f	38	16
16	Tengo que estudiar.	Noun phrase as subject, transitive verb, relator word, infinitive of verb	5g	10	10
17	Hay cinco vasos en la mesa.	Verb "hay," noun phrase as subject, adverb	6a	57	53
18	Es el oso de Sancho.	Use of "de" to indicate possession	NSP(1)	30	24

TABLE 139 continued

Number of Item	Item	Description of Feature Tested	Code[†]	Percentage of Students Answering Correctly	
				Discrete Element	Entire Utterance
19	(No,) Sancho no es simpático.	Negative pattern: noun phrase as subject, negative particle, verb "ser," predicate adjective (in sentence following the utterance "No")	N(11)	30	28
20	Sí, (el papá) lo enseña a su hijo.	Noun phrase as subject, noun phrase as direct object (pronoun), transitive verb, relator word, noun phrase as indirect object	4a'	8	8
21	¿Escucha María la música?	Interrogative pattern (yes-no question): transitive verb, noun phrase as subject, noun phrase as direct object	?(4)	12	12
22	¿De quién es el oso?	De + quién to express "whose"	NSP(6)	8	4
23	¿Compra María una muñeca grande?	Interrogative pattern (yes-no question): transitive verb, noun phrase as subject, noun phrase as direct object (modified)	?(4')	16	14
24	¿Dónde canta Sancho?	Interrogative pattern (information question): interrogative word, intransitive verb, noun phrase as subject	?(6)	26	18
25	¿Es grande su casa?	Interrogative pattern (yes-no question): verb "ser," predicate adjective, noun phrase as subject	?(8)	10	10

[†] The coding system was designed as an aid in referring to identical features across tests. The coding system applies to all three courses. An explanation of the system is given in a note at the end of Table 115, p. 218.

TABLE 139 continued

Number of Item	Item	Description of Feature Tested	Code	Percentage of Students Answering Correctly	
				Discrete Element	Entire Utterance
26	¿Por qué no come María?	Negative-interrogative pattern: interrogative word, negative particle, intransitive verb, noun phrase as subject	N(12)	38	36
27	¿Qué lleva María?	Interrogative pattern (information question): interrogative word, transitive verb, noun phrase as subject	?(5)	38	38
28	¿De dónde es María?	Interrogative pattern (information question): interrogative phrase, verb "ser," noun phrase as subject	?(7)	20	18
29	¿Cantan las mujeres?	Interrogative pattern (yes-no question): intransitive verb, noun phrase as subject	?(10)	18	12
30	Sí, soy fuerte.	Irregular form, verb "ser," first person singular, present tense	Mvi(5)	20	20
31	(Yo) lo sé.	Irregular form, verb "saber," first person singular, present tense	Mvi(2)	8	2
32	(No,) es el niño.	Agreement masculine singular article + masculine singular noun ending in o	Mn(1)	32	32
33	(No,) nuestra muchacha canta bien.	Agreement first person plural feminine possessive adjective + feminine singular noun	Ma(9)	12	10
34	Los niños toman leche.	Regular form, "ar" verb, 3rd person plural, present tense	Mvr(5)	24	16

TABLE 139 continued

Number of Item	Item	Description of Feature Tested	Code†	Percentage of Students Answering Correctly	
				Discrete Element	Entire Utterance
35	(Sí.) (Usted) sale temprano.	Regular form, verb "salir," 3rd person singular, present tense	Mvr(7)	8	8
36	(Sí.) (Yo) canto bien.	Regular form, "ar" verb, 1st person singular, present tense	Mvr(1)	26	22
37	(Sí,) (María) las tiene.	Feminine plural direct object pronoun	Mp(4)	10	10
38	(María) tiene dos blusas verdes.	Agreement of feminine plural noun + adjective with "es" ending	Ma(5)	14	14
39	(Sí,) son sus libros.	3rd person plural possessive adjective with plural noun	Ma(12)	18	18
40	(La pipa) es amarilla.	Agreement of feminine singular noun (+ verb "ser") + feminine singular adjective	Ma(3)	22	20
41	(No,) Sancho toma leche.	Regular form, "ar" verb, third person singular, present tense	Mvr(3)	40	34
42	(Sí,) llegamos a las ocho.	Regular form, "ar" verb, first person plural, present tense	Mvr(4)	4	4
43	(Sí,) (Sancho) lo tiene.	Masculine singular direct object pronoun	Mp(2)	24	24
44	(Yo) digo adiós.	Irregular form, verb "decir," first person singular, present tense	Mvi(3)	8	8

† The coding system was designed as an aid in referring to identical features across tests. The coding system applies to all three courses. An explanation of the system is given in a note at the end of Table 115, p. 218.

TABLE 139 continued

Number of Item	Item	Description of Feature Tested	Code	Percentage of Students Answering Correctly	
				Discrete Element	Entire Utterance
45	(No,) Sancho es un niño.	Irregular form, verb "ser," third person singular, present tense	Mvi(7)	75	63
46	Los hombres son altos.	Irregular form, verb "ser," third person plural, present tense	Mvi(9)	46	30
47	(El) (oso) es amarillo.	Agreement of masculine singular noun (+ verb "ser") + masculine singular adjective	Ma(1)	53	46
48	No, son las niñas.	Agreement plural article + plural noun	Mn(4)	26	24
49	(Sancho) tiene dos (camisas) blancas.	Agreement of feminine plural noun + feminine plural adjective	Ma(4)	24	24

TABLE 140

PERCENTAGE OF STUDENTS CORRECTLY ANSWERING EACH WRITING GRAMMAR TRANSFER ITEM TESTED AT THE END OF THE SPA COURSE, SHOWING RESULTS OF SCORING ON DISCRETE ELEMENTS AND ON ENTIRE UTTERANCE*

Number of Item	Item	Description of Feature Tested	Code	Percentage of Students Answering Correctly	
				Discrete Element	Entire Utterance
1	Un mozo es una persona	Noun phrase as subject, verb "ser," noun phrase as predicate nominative	1a	95	51
2	Son las tres.	Definite article plus number in reference to telling time	NSP(4)	36	14
3	La mesa es negra.	Noun phrase as subject, verb "ser," predicate adjective	1b	93	36
4	(El profesor) canta una canción española	Noun phrase as subject, transitive verb, noun phrase as direct object	3a	26	2
5	Enseño el francés.	Definite article with name of language	NSP(9)	6	4
6	No, no lo tomamos.	Negative pattern: noun phrase as subject (unexpressed), noun phrase as direct object (pronoun), transitive verb	N(10)	12	2
7	(Sí,) es la guitarra del hombre.	Contraction of "de" + "el" to "del"	NSP(10)	6	4

* Items are listed in the order in which they were presented to students on the final test. In scoring on discrete elements, only errors on the point being tested caused loss of credit. In scoring on the entire utterance, the utterance had to be completely free of error for the response to be marked correct. A complete listing of the elements required in each student response is presented in Table 131, p. 315.

† The coding system was designed as an aid in referring to identical features across tests. The coding system applies to all three courses. An explanation of the system is given in a note at the end of Table 115, p. 218.

TABLE 140 continued

Number of Item	Item	Description of Feature Tested	Code	Percentage of Students Answering Correctly	
				Discrete Element	Entire Utterance
8	(El alumno) lo toca.	Noun phrase as subject, noun phrase as direct object (pronoun), transitive verb	3aa	14	8
9	Fuma una pipa negra.	Position of descriptive adjective following verb	NSP(2)	46	16
10	Sale de la escuela.	Noun phrase as subject, intransitive verb, adverb	2a	36	22
11	Las que comen mucho son gordas.	Nominalized definite article "las" modified by a phrase ("las que" to convey "the ones who")	NSP(7)	4	4
12	El elefante es más fuerte que el oso.	Comparison of inequality ("más" + "que" to convey "more than")	NSP(8)	24	20
13	(La niña) lee la carta al profesor.	Noun phrase as subject, transitive verb, noun phrase as direct object, *relator word*, *noun phrase* as indirect object	4a	14	2
14	El muchacho escribe al hombre.	Contraction of "a" + "el" to "al"	NSP(11)	2	2
15	No, prefiero cantar.	Noun phrase as subject, transitive verb with verb infinitive as complement	5f	10	8
16	(Porque) tengo que comer.	Noun phrase as subject, transitive verb, relator word, infinitive of verb	5g	4	4
17	Hay dos alumnos en la clase.	Verb "hay," noun phrase as subject, adverb	6a	51	51
18	Sí, es la muñeca de la niña.	Use of "de" to indicate possession	NSP(1)	40	30

TABLE 140 continued

Number of Item	Item	Description of Feature Tested	Code[†]	Percentage of Students Answering Correctly	
				Discrete Element	Entire Utterance
19	(No,) el oso no es flaco.	Negative pattern: noun phrase as subject, negative particle, verb "ser," predicate adjective (in sentence following utterance "No")	N(11)	40	38
20	Lo enseña a su papá.	Noun phrase as subject, noun phrase as direct object (pronoun), transitive verb, relator word, noun phrase as indirect object	4a'	10	10
21	¿Come Susana el pan?	Interrogative pattern (yes-no question): transitive verb, noun phrase subject, noun phrase as direct object	?(4)	16	10
22	¿De donde es Juan?	Use of "de" preceding "donde" to indicate origin	NSP(12)	32	12
23	¿Tiene Sancho un mono negro?	Interrogative pattern (yes-no question): transitive verb, noun phrase as subject, noun phrase as direct object (modified)	?(4')	20	20
24	¿Por qué no toma usted leche?	Negative-interrogative pattern: interrogative word, negative particle, transitive verb, noun phrase as subject, noun phrase as direct object	N(12)	14	10

[†] The coding system was designed as an aid in referring to identical features across tests. The coding system applies to all three courses. An explanation of the system is given in a note at the end of Table 115, p. 218.

TABLE 140 continued

Number of Item	Item	Description of Feature Tested	Code	Percentage of Students Answering Correctly	
				Discrete Element	Entire Utterance
25	¿Es fuerte el gato?	Interrogative pattern: (yes-no question): verb "ser," predicate adjective, noun phrase as subject	?(8)	14	10
26	¿Cuándo come la mujer?	Interrogative pattern (information question): interrogative word, intransitive verb, noun phrase as subject	?(6)	18	16
27	¿Qué come la niña?	Interrogative pattern (information question): interrogative word, transitive verb, noun phrase as subject	?(5)	28	22
28	¿De quién es la guitarra?	Interrogative pattern (information question): interrogative phrase, verb "ser," noun phrase as subject	?(7)	4	4
29	¿Aprenden los alumnoa?	Interrogative pattern (yes-no): intransitive verb, noun phrase as subject	?(10)	12	10

APPENDIX C

UAE COURSE OBJECTIVES AND STUDENT PERFORMANCE DATA

Objectives from Published Course

Material in this section consists of excerpts from the teacher's guide accompanying Una aventura española.[1]

The Pasadena City Schools are pleased to present Una aventura española, a series of Educational Television lessons in Spanish via the audio-lingual method, designed for elementary children.

It is hoped that students gradually will be able to comprehend and utilize the spoken word. The instructional strategy is based on four teaching tactics:

To develop the ability to learn a second language.

This ability is inherent in young children. Mimicry is capitalized upon at this stage of development. Emphasis is placed on achieving correct pronunciation.

To comprehend and appreciate a second language.

The children are given an early and continuous contact with the Spanish language, stressing the development of accurate and critical learning skills, thus enabling them to develop conversational facility.

To develop an awareness of the influence and impact of Spanish culture.

Spanish is all about us--Spanish names of cities, streets, schools, as well as music, art, and architecture, are part of our everyday living, not to minimize the large numbers of Spanish-speaking American citizens.

To develop an understanding of and respect for the Spanish-speaking peoples of the world.

As nations become more closely related through transportation and communication developments, an understanding of language can aid in the appreciation of the culture and history of the people of these nations.

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[1] Material in this section is quoted from Teacher's Guide Book I for Una aventura española. Pasadena City Schools. (Heath de Rochemont Corporation, 1963). By permission of the publisher.

Course Author's Statement Supplementing Published Course Objectives

The material presented below was obtained from the course author at the beginning of Project D-177 to supplement the statement of objectives in the teacher's guide accompanying Una aventura española.

"Una aventura española" is a two-year program consisting of 180 lessons designed to teach the students progressively to understand Spanish, speak Spanish, and to begin to read that which they can speak.

In the first 90 lessons, the student is introduced to listening comprehension and speaking. Beginning reading does not become an objective until Lessons 91-180. With regard to listening comprehension and speaking, the students are exposed to many things during the first 90 lessons which they are not expected to master until they receive additional exposure and practice in Lessons 91-180.

LISTENING COMPREHENSION OBJECTIVES

In the first 90 lessons, we are mainly concerned with proficiency in listening comprehension. The emphasis is primarily on getting the student accustomed to hearing Spanish sounds so that he can listen to them with ease and pleasure, gradually developing the ability to understand the meaning of the Spanish words, and idiomatic expressions, when spoken by a native speaker at a normal rate of speed. Upon completion of 90 units, the student should be able to demonstrate his ability to comprehend the lexical units and idiomatic expressions which he hears by selecting from among several pictures the one which best agrees with what is being said. For vocabulary and expressions which cannot be easily pictorialized, the student should be able to select from among several written English alternatives the one which best agrees with the Spanish utterances he hears. However, it should be pointed out that the use of ENGLISH in the instructional program is minimal and, therefore, may cause some decrement in performance when used in testing.

After completion of Lessons 91-180, when hearing Spanish spoken by a native speaker at a normal rate of speed, students are expected to be able to demonstrate: (1) recognition of syntactical signals through comprehension of Spanish utterances representing many different syntax patterns; and (2) recognition of the differences in meaning caused by specific morphological changes in Spanish.

SPEAKING OBJECTIVES

The speaking objectives for the first 90 lessons are concerned with mastery of a limited number of Spanish expressions which the student should be able to use with ease and pleasure in specific contexts. Emphasis at this stage is on building confidence and enjoyment through control of a limited amount of the language as a basis for the gradual and progressive development of conversational fluency.

The student should be able to demonstrate his control of a limited number of expressions by making responses to a Spanish speaker which are both appropriate to the situation and understandable to a native speaker of Spanish.

The student should also be able to initiate certain utterances in Spanish. In accordance with directions given him in English, he should be able to produce the appropriate Spanish utterance which a native speaker of Spanish can understand. The utterances which he can control in making responses or initiating conversational exchanges are listed in the "List of Expressions for the Speaking Expression Test (Units 1-90)."

In addition to being able to make himself understood by a native speaker of Spanish, the ultimate goal in regard to pronunciation is near-native control of the Spanish sound system. At the end of 90 lessons, some students are expected to achieve this goal. Those aspects of the Spanish sound system which the student should control are described in the "List of Spanish Sounds to be Tested in Units 1-90."

At the end of the first 90 units, the student will have learned, by heart, 14 songs and 4 verses (see attached list). Given the first line of any of the songs or verses he should be able to say aloud, in Spanish, all of the remaining lines. Students will also be exposed to some basic language patterns found in stories (for example: ¿Dónde está usted?, Lo vi -, etc., from the story, "El pollito," Unit 59, and others).

In Lessons 91-180, emphasis on control of morphological forms and grammatical structures, in speaking, begins. At the end of 180 lessons the student can be expected to demonstrate control of a wide variety of forms and patterns both in initiating Spanish utterances or in responding to a Spanish speaker.

It cannot be emphasized too strongly that UAE is a cooperative endeavor between the TV teacher and the classroom teacher. In-service training in utilization of the materials prior to the initiation of the program and proper use by the classroom teacher of the teacher's guide, recordings, pupil activity books, etc., in preparatory and follow-up activities, are essential for the achievement of the course objectives.

SONGS AND VERSES
(Units 1-90)

In testing the students' knowledge of the songs and verses, it is recommended that a group test be administered and the evaluation be based on group performance. Individual testing of songs may produce an awkward situation for the student and, therefore, inhibit his performance.

Item	Unit	Songs
1.	3	Uno, dos y tres
2.	5	¿Qué es esto?
3.	5	La pelota.
4.	10	Dos y dos
5.	17	Bingo
6.	18	San Severino
7.	32	¿Qué comer?
8.	37	Me gustan todas
9.	47	Juan Molinero
10.	48	Fray Felipe
11.	59	Vengan a ver mi chacra
12.	61	El patito color de café

13.	72	Toda la ropa
14.	79	El jardín zoológico

Verses

15.	8	A - E - I - O - U
16.	12	¡Bate! ¡Bate! ¡El chocolate!
17.	14	Mi bandera
18.	20	Lunes, martes, miércoles, tres.

TABLE 141

PERCENTAGE OF STUDENTS CORRECTLY ANSWERING EACH LISTENING COMPREHENSION VOCABULARY ITEM TESTED AT END OF COURSE IN UAE CLASSES, SHOWING THE CONTEXT IN WHICH EACH RESPONSE WAS SOUGHT*

Number of Item	Item	Percentage of Students Answering Correctly	Number of Item	Item	Percentage of Students Answering Correctly
1	Buenas noches.	66	16	Es un payaso.	81
2	Es un soldado.	69	17	Buenos días, muchachos.	92
3	El padre está aquí.	96	18	Esta es una casa.	70
4	Tenemos una bandera.	95	19	¿Qué hora es?	84
5	El reloj es pesado.	63	20	Es el tiempo de las brujas.	68
6	Son los brazos.	66	21	Es una manzana.	81
7	El carpintero hace así.	80	22	Es un papel.	74
8	Es la una y media.	81	23	Cierro la puerta.	64
9	Es una pelota.	86	24	Aquí está el calendario.	90
10	Es la cabeza.	81	25	La madre es baja.	54
11	Me peino es pelo.	64	26	Son los dedos.	50
12	Es una chacra.	74	27	Duermo en la cama.	73
13	Los pies son para caminar.	71	28	La casa tiene un cuarto.	64
14	Es el sombrero del payaso.	91	29	La abuelita está en el jardín.	41
15	Como naranjas.	78			

* Vocabulary items are underlined. The Spanish utterances are listed in the order in which they were presented to students on the final test. The required student response was a brief Spanish utterance. Only the underlined words were scored.

TABLE 141 Continued

Number of Item	Item	Percentage of Students Answering Correctly	Number of Item	Item	Percentage of Students Answering Correctly
30	Como legumbres.	81	47	La bandera tiene listas.	33
31	Buenos días, maestra.	93	48	Es un lápiz.	61
32	Son números.	90	49	Es la medianoche.	39
33	La bandera tiene estrellas.	33	50	El payaso está contento.	70
34	Es un arbolito.	61	51	Es tinta.	47
35	Son calabazas.	64	52	El primo es guapo.	56
36	El ranchero tiene un perro.	74	53	Me levanto.	61
37	La lavandera hace así.	64	54	Bailo en la sala.	55
38	Es la una.	87	55	Tiene dos ojos.	91
39	Es una mesa.	91	56	El abuelo es simpático.	62
40	Es la cara.	24	57	Voy caminando.	59
41	Son gatos.	90	58	La casa tiene una cocina.	78
42	Tenemos una pizarra.	63	59	Es un pizarrón.	11
43	Las piernas son para caminar.	43	60	Es una recámara.	9
44	Está triste.	53	61	Tenemos una ventana.	76
45	La casa tiene un cuarto de baño.	56	62	Es un burro.	97
46	Como frutas.	97			

TABLE 141 Continued

Number of Item	Item	Percentage of Students Answering Correctly
63	Tenemos una puerta.	87
64	El reloj tiene un pajarito.	60
65	La cabeza tiene dientes.	76
66	Va a escribir.	59
67	El zapatero hace así.	70
68	Es la puerta pequeña.	86
69	Vemos los libros.	86
70	Tiene dos cejas.	39
71	Leo en la sala.	63
72	Como muchas frutas.	79
73	Es un chango.	86
74	Duermo en la alcoba.	69
75	Tiene dos orejas.	33
76	¿Cuántos hay en la clase?	95
77	Es el pelo.	60
78	El tío es alto.	84
79	¡Bate el chocolate!	88
80	Son las manos.	87
81	Había un ranchero.	92
82	Me siento.	73
83	Es una boca.	69
84	Como muchas fresas.	84
85	Carlos va a la escuela.	76
86	Tengo un cuerpo humano.	40
87	Esta es una persona.	42
88	Como cerezas.	79
89	Me lavo.	49
90	Buenas tardes, señorita.	97
91	Es un vaquero.	65
92	Es helado.	32
93	Es chocolate.	96

TABLE 141 Continued

Number of Item	Item	Percentage of Students Answering Correctly	Number of Item	Item	Percentage of Students Answering Correctly
94	Es un cuaderno.	30	110	Es una estancia.	39
95	Es una pluma.	75	111	La casa tiene una alcoba.	61
96	Es un techo.	8	112	Es una nariz.	81
97	Abro la puerta.	89	113	Este es un garaje.	63
98	Tenemos un reloj.	83	114	La casa tiene un comedor.	63
99	Tengo un cuerpo.	50	115	La casa tiene una azotea.	35
100	El padre lee el periódico.	72	116	Está en el rancho.	94
101	Vemos un escritorio.	68	117	La madre vive en la casa.	94
102	Es un dromedario.	58	118	Es una chimenea.	89
103	El automóvil está en el garaje.	88	119	Es una silla.	88
104	Es la puerta grande.	92	120	En el patio hay un árbol.	94
105	Hay muchos animales en México.	90	121	Esta es una pared.	39
106	Hay muchas flores en México.	91	122	Es un charro.	28
107	Es un gaucho.	95	123	Es el número ocho.	95
108	Es una hacienda.	56	124	Tiene un pajarito.	48
109	Me limpio los dientes.	56			

TABLE 141 Continued

Number of Item	Item	Percentage of Students Answering Correctly	Number of Item	Item	Percentage of Students Answering Correctly
125	Vemos el reloj bonito.	83	141	Vamos a ver.	70
126	Es el número treinta y siete.	88	142	Ayer fue martes.	70
127	Es el primo.	60	143	Es el número once.	94
128	La madre es rubia.	79	144	Seis y dos.	86
129	¿Cómo están ustedes?	63	145	Estoy bien	67
130	¿Quieres jugar?	13	146	Con el pajarito.	32
131	Buenas tardes.	64	147	Es mi bandera.	70
132	Muy bien.	92	148	Es el número cuatro.	96
133	Es para escribir.	36	149	Es domingo.	75
134	Es el número uno.	97	150	Es un huaso.	20
135	Es miércoles.	60	151	Es una semana.	65
136	Hay doce muchachos en la casa.	53	152	Tengo muchas cosas.	42
137	Vemos la pizarra.	40	153	Es una aventura española.	72
138	Es el número cincuenta.	79	154	¿Cómo está usted?	59
139	Tenemos una lección.	82	155	Vamos a cantar.	39
140	Es el tío.	61	156	¿Quién sabe?	63
			157	Tenemos una lección muy interesante.	65

TABLE 141 Continued

Number of Item	Item	Percentage of Students Answering Correctly	Number of Item	Item	Percentage of Students Answering Correctly
158	La casa tiene dos pisos.	64	174	¿Cómo te llamas?	58
159	Es el número siete.	87	175	¿Cuáles son estos números?	55
160	¿Qué vemos en la clase?	32	176	Es una manzana deliciosa.	89
161	Es rojo.	75	177	Es el número tres.	97
162	Aquí está el calendario.	53	178	Es lunes.	82
163	¿Qué pasa?	53	179	Son padres.	71
164	Es jueves.	65	180	¿Qué día fue ayer?	39
165	También estoy muy bien.	46	181	Voy a contar una historia.	82
166	Es un minuto.	81	182	Vamos a todos los cuartos.	36
167	Es el número quince.	90	183	¿Cuál es este número?	63
168	¡Qué tarde!	64	184	Es el número catorce.	83
169	Carlos va a la escuela.	65	185	El padre es moreno.	52
170	Hay unos libros azules.	48	186	El padre vive en la casa.	75
171	Es sábado.	77	187	Es española.	92
172	Es el número diez.	95	188	Es el número seis.	93
173	Voy a contar un cuento.	43	189	¿Cómo es el libro?	14

TABLE 141 Continued

Number of Item	Item	Percentage of Students Answering Correctly	Number of Item	Item	Percentage of Students Answering Correctly
190	Yo también voy.	38	205	¿Dónde está el perro?	44
191	Es un cuaderno gris.	78	206	Es el número dos.	96
192	¿Cuántos días hay en una semana?	55	207	Es martes.	76
193	Hay dos árboles verdes aquí.	53	208	Escuchen.	97
194	Es viernes.	58	209	Mañana es jueves.	60
195	Dale más.	46	210	Cocino en la cocina.	87
196	Es el número trece.	86	211	¿Qué es esto?	61
197	Es el tiempo de las brujas.	39	212	Es el número cuarenta.	85
198	Son negros.	89	213	Me gusta.	52
199	¿Cómo estás hoy?	60	214	Es el color de café.	87
200	¿Qué haces?	40	215	En la clase.	94
201	Es el número nueve.	95	216	Es el abuelo simpático.	58
202	Cuento hasta diez.	72	217	Es el número cinco.	95
203	¡Qué bonita!	70	218	Vemos la pizarra larga.	56
204	Son las once de la noche.	73			

TABLE 141 Continued

Number of Item	Item	Percentage of Students Answering Correctly
219	Son las cinco de la tarde.	63
220	Es el libro nuevo.	61
221	¿Qué día es hoy?	60
222	Son las nueve de la mañana.	58
223	Faltan veinte minutos para las seis.	46
224	Es la pelota redonda.	73
225	Es el número doce.	89
226	Vaya a la silla.	41
227	Me gustan todas.	63
228	Es un tigre.	85
229	Come cereal.	82
230	Es un cuchillo.	48
231	Es un durazno.	57
232	Es una lámpara.	90
233	Es un león.	94
234	Me gusta la lechuga.	53
235	Es el verano.	21
236	El león tiene garras.	33
237	Aquí tenemos una estufa.	81
238	El elefante tiene patas muy pesadas.	54
239	Es un oso pequeño.	42
240	Es una bolsa.	45
241	Es un zorro.	62
242	Es una pera.	83
243	La muchacha lleva un vestido.	37
244	Tiene un pescuezo largo.	44
245	El primo juega.	29
246	Tiene manchas.	30
247	Es una blusa.	80
248	Es el sombrero del hombre.	66
249	Es el sol.	34

TABLE 141 Continued

Number of Item	Item	Percentage of Students Answering Correctly
250	La llama vive en la América del Sur.	85
251	El león tiene una cola.	48
252	Es un camello.	58
253	Es una oveja.	33
254	Es un granero.	29
255	Es una taza.	36
256	Hace frío.	5
257	Es una vaca.	62
258	Es una cebra.	65
259	Es la leche.	61
260	Es un cerdo.	30
261	El padre tiene una pipa.	65
262	Son pantalones.	81
263	Aquí tenemos un refrigerador.	83
264	La sandía es dulce.	42
265	La madre lava los platos.	52
266	Es un toro.	81
267	Es un sofá.	87
268	Tiene una trompa.	21
269	Lleva una falda.	42
270	Son unas servilletas.	38
271	Es un pato.	35
272	Lleva un abrigo.	34
273	Hace calor.	58
274	Es el pan.	33
275	Es una camisa.	55
276	Toma leche.	55
277	Es una jirafa.	75
278	Es una cuchara.	46
279	Son zapatos.	60
280	Es un cochino.	33
281	Es una alfombra.	67
282	Está lloviendo.	32
283	Me gusta el melón.	59

TABLE 141 Continued

Number of Item	Item	Percentage of Students Answering Correctly
284	Son guantes.	50
285	Es un tenedor.	50
286	Va a lavar la ropa.	51
287	La gallina vive en la granja.	57
288	Es el invierno.	20
289	Me gustan los plátanos.	75
290	Hay un mantel.	30
291	Bebo leche.	33
292	El pollito vive en la granja.	72
293	Es un sillón.	12
294	Los camotes son legumbres.	11
295	Es carne.	9
296	Es un vaso.	40
297	Me gusta la piña.	72
298	Son platos.	58
299	Es un mueble.	24
300	Me gustan las zanahorias.	25
301	Es un ganso.	64
302	Es una coliflor.	80
303	Es el oso mediano.	64
304	El tocador es un mueble.	77
305	Es un cuadro.	32
306	Me gustan las cebollas.	47
307	Toma sopa.	56
308	Está nevando.	12
309	Son cortinas.	53
310	Es un caballo.	38
311	Así se toca el piano.	63
312	Lleva calcetines.	47
313	Es un mono.	43
314	La madre seca los platos.	31
315	Es el jardín zoológico.	45

TABLE 141 Continued

Number of Item	Item	Percentage of Students Answering Correctly
316	Es el otoño.	47
317	María lleva una gorra.	26
318	Miren mi canasta.	41
319	La colgadura es para la ventana.	24
320	La bicicleta está en el garaje.	58
321	Es un pavo.	45
322	El padre está en la sala.	64
323	Lleva unas botas.	35
324	Toca la campana.	35
325	El muchacho lleva ropa.	62
326	Tenemos muchas cosas.	51
327	Es enero.	70
328	El león tiene cachorros.	50
329	¿Come pan tostado?	58
330	Voy a doblar la ropa.	42
331	Me gustan las papas.	60
332	Es mi animal favorito.	71
333	Enero trae el frío.	50
334	Es el número noventa.	82
335	El tigre es féroz.	87
336	¡Qué bien!	66
337	Junio trae las vacaciones.	71
338	Ella come cereal.	31
339	El león tiene una melena hermosa.	57
340	Come pan con mantequilla.	47
341	La pelota es parda.	32
342	Noviembre trae las hojas.	32

TABLE 141 Continued

Number of Item	Item	Percentage of Students Answering Correctly	Number of Item	Item	Percentage of Students Answering Correctly
343	Lleva unas botas elegantes.	56	359	La madre compra legumbres.	42
344	Es el número setenta.	60	360	Es un mes.	49
345	Es dulce.	34	361	Me gusta ir.	37
346	Necesito un mantel.	44	362	La madre le da comida al perro.	45
347	Sabemos muchas canciones.	32	363	Es el cuarto mes.	68
348	Lleva una capa de agua.	39	364	El change come cacahuetes.	52
349	María lleva medias.	30	365	Julio trae las noches cortas.	37
350	Vengan a ver mi chacra.	78	366	Voy a lavar la ropa.	40
351	Diciembre trae los días de la Navidad.	45	367	El verano trae el sol brillante.	51
352	La muchacha come huevos.	52	368	Es la primavera.	48
353	Es el tercer mes.	19	369	Vamos a hablar.	33
354	Es el número cien.	53	370	Es el primer mes.	31
355	Necesito un vaso para el agua.	61	371	El tiene un par de pantalones.	48
356	No es difícil.	38	372	Es una canción.	40
357	Es mi amigo.	74	373	La muchacha come huevos fritos.	45
358	Come galletas.	38	374	Es el segundo mes.	48

TABLE 141 Continued

Number of Item	Item	Percentage of Students Answering Correctly	Number of Item	Item	Percentage of Students Answering Correctly
375	El padre corre.	41			
376	Hay cuatro estaciones.	53			
377	Hace fresco.	51			
378	Enero traé la nieve.	33			
379	Lleva un sombrero amarillo.	58			
380	El chango es muy inteligente.	64			
381	¿Qué dice la galline?	38			
382	Noviembre trae las hojas de diferentes colores.	56			
383	Vengan conmigo.	59			
384	Es un año.	68			

TABLE 142

PERCENTAGE OF STUDENTS CORRECTLY ANSWERING EACH SPEAKING EXPRESSION ITEM TESTED AT THE END OF THE UAE COURSE, SHOWING RESULTS OF SCORING ON ENTIRE UTTERANCE AND ON MINIMAL ACCEPTABLE RESPONSE*

Number of Item	Scoring Entire Utterance		Scoring Minimal Acceptable Response	
	Correct Response†	Percentage of Students Answering Correctly	Correct Response†	Percentage of Students Answering Correctly
1	Hay cuatro estaciones en el año.	0	$\overset{1}{\text{Hay}} + \overset{2}{\text{any}}\ \text{number} + \overset{3}{\text{estaciones}} + \overset{4}{\text{en}} + \overset{5}{\text{(ND)}} + \overset{6}{\text{año}}$	0
2	(Son) las dos y media.	15	$\overset{1}{\text{(Son)}} + \overset{2}{\text{definite}}\ \text{article} + \overset{3}{\text{number}}$, except una + $\overset{4}{\text{y}} + \overset{5}{\text{media}}$	15
3	Me gustan las frutas.	0	$\overset{1}{\text{Me}} + \overset{2}{\text{gustan}} + \overset{3}{\text{(ND)}} + \overset{4}{\text{frutas}}$	5
4	Es (el mes de) junio.	1	a. $\overset{1}{\text{Es}} + \overset{2}{\text{(ND)}} + \overset{3}{\text{mes}} + \overset{4}{\text{de}} + \overset{5}{\text{junio}}$ b. $\overset{1}{\text{Es}} + \overset{2}{\text{junio}}$	1

* Items are listed in the order in which they were presented to students on the final test. In scoring on the entire utterance, the response had to be completely free of error to be marked correct. In scoring on discrete elements, only errors on the points being tested caused loss of credit.

† The parentheses within an utterance indicate that the element for that slot is optional. However, if the slot is filled, it must be with the element indicated in the parentheses to be scored correct. A detailed description of the procedures used in scoring is presented in Chapter 4 of this report.

TABLE 142 continued

Number of Item	Scoring Entire Utterance		Scoring Minimal Acceptable Response	
	Correct Response	Percentage of Students Answering Correctly	Correct Response	Percentage of Students Answering Correctly
5	Hace calor.	1	$\overset{1}{\text{Hace}}$ + $\overset{2}{\text{calor}}$	1
6	¿Cuál (qué) es este animal?	1	$\overset{1}{\text{Cuál (qué)}}$ + $\overset{2}{\text{es}}$ + $\overset{3}{\text{este}}$ + $\overset{4}{\text{animal}}$	1
7	Me levanto.	3	$\overset{1}{\text{Me}}$ + $\overset{2}{\text{levanto}}$	3
8	El elefante es muy pesado.	5	$\overset{1}{\text{(ND)}}$ + $\overset{2}{\text{elefante}}$ + $\overset{3}{\text{es}}$ + $\overset{4}{\text{(muy)}}$ + $\overset{5}{\text{pesado}}$	13
9	Hace fresco.	1	$\overset{1}{\text{Hace}}$ + $\overset{2}{\text{fresco}}$	1
10	¿Cuántos meses hay en un año?	0	$\overset{1}{\text{Cuántos}}$ + $\overset{2}{\text{meses}}$ + $\overset{3}{\text{hay}}$ + $\overset{4}{\text{en}}$ + $\overset{5}{\text{(ND)}}$ + $\overset{6}{\text{año}}$	0
11	La llama vive en el jardín zoológico.	0	$\overset{1}{\text{(ND)}}$ + $\overset{2}{\text{llama}}$ + $\overset{3}{\text{vive}}$ + $\overset{4}{\text{en}}$ + $\overset{5}{\text{(ND)}}$ + $\overset{6}{\text{jardín}}$ + $\overset{7}{\text{zoológico}}$	1
12	Hay doce meses en un año.	3	$\overset{1}{\text{Hay}}$ + $\overset{2}{\text{any number, except un}}$ + $\overset{3}{\text{meses}}$ + $\overset{4}{\text{en}}$ + $\overset{5}{\text{(ND)}}$ + $\overset{6}{\text{año}}$	3

TABLE 142 continued

Number of Item	Scoring Entire Utterance		Scoring Minimal Acceptable Response	
	Correct Response[†]	Percentage of Students Answering Correctly	Correct Response[†]	Percentage of Students Answering Correctly
13	El padre es alto (grande).	15	$\overset{1}{\text{(ND)}} + \overset{2}{\text{padre}} + \overset{3}{\text{es}} + \overset{4}{\text{alto}}\ \text{(grande)}$	20
14	¡Qué delicioso! (sabroso)	1	$\overset{1}{\text{Qué}} + \overset{2}{\text{descriptive adjective}}$	3
15	Es la (una) muchacha (niña).	17	$\overset{1}{\text{Es}} + \overset{2}{\text{(ND)}} + \overset{3}{\text{muchacha (niña)}}$	24
16	(Yo) cierro la puerta.	8	$\overset{1}{\text{(Yo)}} + \overset{2}{\text{cierro}} + \overset{3}{\text{(ND)}} + \overset{4}{\text{puerta}}$	8
17	Me gusta la naranja.	6	$\overset{1}{\text{Me}} + \overset{2}{\text{gusta}} + \overset{3}{\text{(ND)}} + \overset{4}{\text{naranja}}$	12
18	¿Cuál (qué) es este mes?	0	$\overset{1}{\text{Cuál (qué)}} + \overset{2}{\text{es}} + \overset{3}{\text{este}} + \overset{4}{\text{mes}}$	0
19	Hace frío.	1	$\overset{1}{\text{Hace}} + \overset{2}{\text{frío}}$	1

[†] The parentheses within an utterance indicate that the element for that slot is optional. However, if the slot is filled, it must be with the element indicated in the parentheses to be scored correct. A detailed description of the procedures used in scoring is presented in Chapter 4 of this report.

TABLE 142 continued

Number of Item	Scoring Entire Utterance		Scoring Minimal Acceptable Response	
	Correct Response	Percentage of Students Answering Correctly	Correct Response	Percentage of Students Answering Correctly
20	La cebra tiene listas blancas y negras.	0	1 2 3 4 5 6 (ND) + cebra + tiene + listas + blancas + y + 7 negras	0
21	La fruta es sabrosa y deliciosa.	3	1 2 3 4 5 6 (ND) + fruta + es + sabrosa + y + deliciosa	3
22	Es (el número) cinco.	12	1 2 3 4 Es + (ND) + (número) + cinco	41
23	El reloj es pesado.	12	1 2 3 4 (ND) + reloj + es + pesado	15
24	¿Qué día es (hoy)?	6	1 2 3 4 Qué (cuál) + día + es + (hoy)	6
25	(Yo) abro la puerta.	13	1 2 3 4 (Yo) + abro + (ND) + puerta	13
26	Buenas tardes.	34	1 2 Buenas + tardes	34
27	Me llamo María.	17	1 2 3 Me + llamo + name	15

TABLE 142 continued

Number of Item	Scoring Entire Utterance		Scoring Minimal Acceptable Response	
	Correct Response†	Percentage of Students Answering Correctly	Correct Response†	Percentage of Students Answering Correctly
28	¿Qué es esto (ésta)?	5	Qué^{1} (cuál) + es^{2} + esto^{3} (esta)	5
29	(Son) las dos.	12	(Son)^{1} + las^{2} + number^{3}, except una	17
30	(Hoy) es miércoles.	12	(Hoy)^{1} + es^{2} + miércoles^{3}	12
31	Buenas noches.	34	Buenas^{1} + noches^{2} (tardes)	36
32	(Faltan) veinte (minutos) para las seis.	10	a. (Faltan)^{1} (son) + veinte^{2} + (minutos)^{3} + para^{4} + las^{5} + any number^{6}, except un or veinte b. (Faltan)^{1} (son) + any number^{2}, except un or seis + (minutos)^{3} + para^{4} + las^{5} + seis^{6}	12

† The parentheses within an utterance indicate that the element for that slot is optional. However, if the slot is filled, it must be with the element indicated in the parentheses to be scored correct. A detailed description of the procedures used in scoring is presented in Chapter 4 of this report.

TABLE 142 continued

Number of Item	Scoring Entire Utterance		Scoring Minimal Acceptable Response	
	Correct Response	Percentage of Students Answering Correctly	Correct Response	Percentage of Students Answering Correctly
33	¿Cuál (qué) es este número?	1	$\overset{1}{\text{Cuál}}$ (qué) + $\overset{2}{\text{es}}$ + $\overset{3}{\text{este}}$ + $\overset{4}{\text{número}}$	1
34	Es la mesa grande.	10	$\overset{1}{\text{Es}}$ + $\overset{2}{\text{(ND)}}$ + $\overset{3}{\text{mesa}}$ + $\overset{4}{\text{grande}}$	17
35	¿Qué hora es?	13	$\overset{1}{\text{¿Qué}}$ + $\overset{2}{\text{hora}}$ + $\overset{3}{\text{es?}}$	13
36	¿Cuántos días hay en una semana?	0	$\overset{1}{\text{Cuántos}}$ + $\overset{2}{\text{días}}$ + $\overset{3}{\text{hay}}$ + $\overset{4}{\text{en}}$ + $\overset{5}{\text{(ND)}}$ + $\overset{6}{\text{semana}}$	0
37	Buenos días	34	$\overset{1}{\text{Buenos}}$ + $\overset{2}{\text{días}}$	36
38	Hay siete días en una semana.	0	$\overset{1}{\text{Hay}}$ + $\overset{2}{\text{any number, except un}}$ + $\overset{3}{\text{días}}$ + $\overset{4}{\text{en}}$ + $\overset{5}{\text{(ND)}}$ + $\overset{6}{\text{semana}}$	0
39	a. ¿Cómo te llamas (tú)?	3	a. $\overset{1}{\text{Cómo}}$ + $\overset{2}{\text{te}}$ + $\overset{3}{\text{llamas}}$ + $\overset{4}{\text{(tú)}}$	3
	b. ¿Cómo se llama (Ud.)?		b. $\overset{1}{\text{Cómo}}$ + $\overset{2}{\text{se}}$ + $\overset{3}{\text{llama}}$ + $\overset{4}{\text{(Ud.)}}$	

TABLE 142 continued

Number of Item	Scoring Entire Utterance		Scoring Minimal Acceptable Response	
	Correct Response†	Percentage of Students Answering Correctly	Correct Response†	Percentage of Students Answering Correctly
40	¿Qué es esto? Por favor.	0	$\overset{1}{\text{Qué}}$ (cuál) + $\overset{2}{\text{es}}$ + $\overset{3}{\text{esto}}$ + $\overset{4}{\text{por}}$ + $\overset{5}{\text{favor}}$	0
41	(Yo) me siento.	15	$\overset{1}{\text{(Yo)}}$ + $\overset{2}{\text{me}}$ + $\overset{3}{\text{siento}}$	15
42	Es la silla pequeña.	8	$\overset{1}{\text{Es}}$ + $\overset{2}{\text{(ND)}}$ + $\overset{3}{\text{silla}}$ + $\overset{4}{\text{pequeña}}$	8
43	Son las muchachas (niñas).	0	$\overset{1}{\text{Son}}$ + $\overset{2}{\text{(ND)}}$ + $\overset{3}{\text{muchachas}}$ (niñas)	0
44	(Es) la una.	20	$\overset{1}{\text{(Es)}}$ + $\overset{2}{\text{la}}$ + $\overset{3}{\text{una}}$	20
45	La madre es alta.	18	$\overset{1}{\text{(ND)}}$ + $\overset{2}{\text{madre}}$ + $\overset{3}{\text{es}}$ + $\overset{4}{\text{alta}}$	22
46	(Son) (las) dos y media.	10	$\overset{1}{\text{(Son)}}$ + (definite $\overset{2}{\text{article)}}$ + $\overset{3}{\text{number}}$, except una + $\overset{4}{\text{y}}$ + $\overset{5}{\text{media}}$	15

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† The parentheses within an utterance indicate that the element for that slot is optional. However, if the slot is filled, it must be with the element indicated in the parentheses to be scored correct. A detailed description of the procedures used in scoring is presented in Chapter 4 of this report.

TABLE 142 continued

Number of Item	Scoring Entire Utterance		Scoring Minimal Acceptable Response	
	Correct Response	Percentage of Students Answering Correctly	Correct Response	Percentage of Students Answering Correctly
47	Es (el) (número) cinco.	31	$\overset{1}{\text{Es}} + \overset{2}{\text{(ND)}} + \overset{3}{\text{(número)}} + \overset{4}{\text{cinco}}$	58
48	(Hoy) es miércoles.	18	$\overset{1}{\text{(Hoy)}} + \overset{2}{\text{es}} + \overset{3}{\text{miércoles}}$	20
49	Me llamo María.	18	$\overset{1}{\text{Me}} + \overset{2}{\text{llamo}} + \overset{3}{\text{name}}$	18
50	Hace fresco.	1	$\overset{1}{\text{Hace}} + \overset{2}{\text{fresco}}$	1
51	(El reloj) es pesado.	12	$\overset{1}{\text{(ND)}} + \overset{2}{\text{reloj}} + \overset{3}{\text{es}} + \overset{4}{\text{pesado}}$	13
52	(Hay) doce meses en un año.	12	$\overset{1}{\text{(Hay)}} + \text{any}\ \overset{2}{\text{number}}\text{, except un} + \overset{3}{\text{meses}} + \overset{4}{\text{en}} + \overset{5}{\text{(ND)}} + \overset{6}{\text{año}}$	13
53	(La madre) cocina en la cocina.	36	$\overset{1}{\text{(ND)}}$[≠] $+ \overset{2}{\text{(madre)}} + \overset{3}{\text{cocina}} + \overset{4}{\text{en}} + \overset{5}{\text{(ND)}} + \overset{6}{\text{cocina}}$	51

[≠] If ND is present in slot 1, madre must be present in slot 2.

TABLE 142 continued

Number of Item	Scoring Entire Utterance		Scoring Minimal Acceptable Response	
	Correct Response[†]	Percentage of Students Answering Correctly	Correct Response[†]	Percentage of Students Answering Correctly
54	a. Es (el mes de) junio. b. El mes de junio.	5	a. $\overset{1}{\text{Es}} + \overset{2}{\text{(ND)}} + \overset{3}{\text{mes}} + \overset{4}{\text{de}} + \overset{5}{\text{junio}}$ b. $\overset{1}{\text{El}} + \overset{2}{\text{mes}} + \overset{3}{\text{de}} + \overset{4}{\text{junio}}$ c. $\overset{1}{\text{Es}} + \overset{2}{\text{junio}}$	13
55	La muchacha (niña) lleva un sombrero.	1	$\overset{1}{\text{(ND)}} + \overset{2}{\text{muchacha (niña)}} + \overset{3}{\text{lleva}} + \overset{4}{\text{(ND)}} + \overset{5}{\text{sombrero}}$	15
56	(Es) la una.	24	$\overset{1}{\text{(Es)}} + \overset{2}{\text{la}} + \overset{3}{\text{una}}$	24
57	La llama vive en el jardín zoológico.	0	$\overset{1}{\text{(ND)}} + \overset{2}{\text{llama}} + \overset{3}{\text{vive}} + \overset{4}{\text{en}} + \overset{5}{\text{(ND)}} + \overset{6}{\text{jardín}} + \overset{7}{\text{zoológico}}$	0
58	Muy bien, gracias.	37	$\overset{1}{\text{Any statement expressing good health}} + \overset{2}{\text{gracias}}$	41

[†] The parentheses within an utterance indicate that the element for that slot is optional. However, if the slot is filled, it must be with the element indicated in the parentheses to be scored correct. A detailed description of the procedures used in scoring is presented in Chapter 4 of this report.

TABLE 142 continued

Number of Item	Scoring Entire Utterance		Scoring Minimal Acceptable Response	
	Correct Response	Percentage of Students Answering Correctly	Correct Response	Percentage of Students Answering Correctly
59	Es la (una) silla pequeña.	8	$\overset{1}{\text{Es}} + \overset{2}{\text{(ND)}} + \overset{3}{\text{silla}} + \overset{4}{\text{pequeña}}$	8
60	Hace calor.	8	$\overset{1}{\text{Hace}} + \overset{2}{\text{calor}}$	8
61	El elefante es pesado.	27	$\overset{1}{\text{(ND)}} + \overset{2}{\text{elefante}} + \overset{3}{\text{es}} + \overset{4}{\text{pesado}}$	27
62	(Hay) cuatro personas en esta (la familia).	5	$\overset{1}{\text{(Hay)}} + \overset{2}{\text{any number, except una}} + \overset{3}{\text{personas}} + \overset{4}{\text{en}} + \overset{5}{\text{(ND)}} + \overset{6}{\text{familia}}$	8
63	Es la (una) mesa grande.	24	$\overset{1}{\text{Es}} + \overset{2}{\text{(ND)}} + \overset{3}{\text{mesa}} + \overset{4}{\text{grande}}$	31
64	Sí, me gusta la naranja.	15	$\overset{1}{\text{(Sí,)}} + \overset{2}{\text{me}} + \overset{3}{\text{gusta}} + \overset{4}{\text{(ND)}} + \overset{5}{\text{naranja}}$	22

TABLE 142 continued

Number of Item	Scoring Entire Utterance		Scoring Minimal Acceptable Response	
	Correct Response†	Percentage of Students Answering Correctly	Correct Response†	Percentage of Students Answering Correctly
65	a. (Faltan) veinte (minutos) para las seis. b. (Son) las seis menos veinte.	15	a. (Faltan)^{1}(son) + $\overset{2}{\text{veinte}}$ + $\overset{3}{\text{(minutos)}}$ + $\overset{4}{\text{para}}$ + definite^{5}article + $\overset{6}{\text{number}}$, except un or veinte b. $\overset{1}{\text{(Faltan)}}$ (son) + $\overset{2}{\text{any number}}$ except un or seis + $\overset{3}{\text{(minutos)}}$ + $\overset{4}{\text{para}}$ + definite^{5}article + $\overset{6}{\text{seis}}$ c. $\overset{1}{\text{(Son)}}$ + $\overset{2}{\text{definite article}}$ + $\overset{3}{\text{any number}}$, except una + $\overset{4}{\text{menos}}$ + $\overset{5}{\text{veinte}}$	17
66	El padre es alto.	25	$\overset{1}{\text{(ND)}}$ + $\overset{2}{\text{padre}}$ + $\overset{3}{\text{es}}$ + $\overset{4}{\text{alto}}$	41

† The parentheses within an utterance indicate that the element for that slot is optional. However, if the slot is filled, it must be with the element indicated in the parentheses to be scored correct. A detailed description of the procedures used in scoring is presented in Chapter 4 of this report.

TABLE 142 continued

Number of Item	Scoring Entire Utterance		Scoring Minimal Acceptable Response	
	Correct Response	Percentage of Students Answering Correctly	Correct Response	Percentage of Students Answering Correctly
67	(Hay) cuatro estaciones en un año.	5	$\overset{1}{\text{(Hay)}}$ + any $\overset{2}{\text{number}}$, except una + $\overset{3}{\text{estaciones}}$ + $\overset{4}{\text{en}}$(de) + $\overset{5}{\text{(ND)}}$ + $\overset{6}{\text{año}}$	8
68	Son las dos.	15	$\overset{1}{\text{Son}}$ + definite $\overset{2}{\text{article}}$ + $\overset{3}{\text{number}}$, except una	17
69	(La cebra tiene) listas blancas y negras.	0	$\overset{1}{\text{(ND)}}$≠ + $\overset{2}{\text{(cebra)}}$ + $\overset{3}{\text{(tiene)}}$ + $\overset{4}{\text{listas}}$ + $\overset{5}{\text{blancas}}$ + $\overset{6}{\text{y}}$ + $\overset{7}{\text{negras}}$	0
70	(Sí,) (la fruta) es sabrosa y deliciosa.	6	$\overset{1}{\text{(Sí,)}}$§ + $\overset{2}{\text{(ND)}}$ + $\overset{3}{\text{(fruta)}}$ + $\overset{4}{\text{es}}$ + $\overset{5}{\text{sabrosa}}$ + $\overset{6}{\text{y}}$ + $\overset{7}{\text{deliciosa}}$	6
71	Hace frío.	6	$\overset{1}{\text{Hace}}$ + $\overset{2}{\text{frío}}$	6
72	(Hay) siete días en una semana.	10	$\overset{1}{\text{(Hay)}}$ + $\overset{2}{\text{number}}$ + $\overset{3}{\text{días}}$ + $\overset{4}{\text{en}}$ + $\overset{5}{\text{(ND)}}$ + $\overset{6}{\text{semana}}$	15

≠ If ND is present in slot 1, cebra must be present in slot 2. If cebra is present in slot 2, tiene must be present in slot 3.

§ If ND is present in slot 2, fruta must be present in slot 3.

TABLE 143

PERCENTAGE OF STUDENTS CORRECTLY ANSWERING EACH PRONUNCIATION (CONSTRUCTED RESPONSE) ITEM TESTED AT THE END OF THE UAE COURSE, GIVING DESCRIPTION OF FEATURE TESTED AND PROBABLE ERROR*

Number of Item†	Feature Tested	Percentage of Students Answering Correctly	Description of Feature Tested	Stimulus Word	Probable Error
1a	rr	33	A multiple trill	burro	The English "growled" r as in borrow or burrow
2b	ƀ	35	Fricative or soft b (even though spelled v)	hace viento	The English v as in vent or the stop or hard b as in bent. In spite of the v in the Spanish spelling, it is not pronounced like an English v.
3c	ǥ	11	Fricative or soft g	jugando	The stop or hard g as in Uganda or regard
4d	x	30	Spanish j (or jota) (pronounced with fairly strong friction noise)	jirafa	A much softer English h as in heater or healer
5e	ye	76	Two vowel letters (ie) pronounced in a single syllable. Siete is two syllables: sie-te	siete	In English the most similar vowels are pronounced in separate syllables: Siete would be three syllables: si-e-te

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* The features of phonology are listed in the order in which they were presented to students on the final tests. The required student response was always a brief Spanish utterance. However, only the specific feature listed was evaluated.

† The number designates the test sentence in which the feature being evaluated appeared. The letter designates the feature itself, thus showing when more than one feature in a test sentence was evaluated.

TABLE 143 continued

Number of Item	Feature Tested	Percentage of Students Answering Correctly	Description of Feature Tested	Stimulus Word	Probable Error
6f	đ	14	Fricative or soft d (Should sound like the th of weather)	dedos	The stop or hard d as in May day or deader
7g	l	35	Bright Spanish l (Should sound a little like the l in throttle or waddle)	cereal	The English dark l as in cereal or all
8h	r	61	Spanish flapped r (Should sound a little like the d in pedagogue and sedative)	pera	The English "growled" r, as in pair o'(pants) or Sarah
9i	e	35	The simple or pure vowel e	café	The English diphthong, as in Fay or they
10j	o	45	The simple or pure vowel o	no	The English diphthong, as in know or go
11k	ă	21	Unstressed a, which retains the quality of a as in mano, even when unstressed	muchas	The English obscured vowel as in churches or Brutus
12l	i	33	Spanish i (Should sound a little like the ee in seem)	simpát-ico	The English vowel sound of sympathy or simpleton
12m	a	66	Spanish a (Should sound a little like the o in potter or wroth)	simpát-ico	The English vowel sound of patter or path
13n	Rhythm	11	Syllables timed evenly: Es una lección interesante.	Es una lección inter-esante	Stressed syllables lengthened: Es una lección interesante.

TABLE 143 continued

Number of Item[†]	Feature Tested	Percentage of Students Answering Correctly	Description of Feature Tested	Stimulus Word	Probable Error
14o	Intonation of vocatives	16	Falling intonation on a vocative at the end of a sentence: Buenos días, Juan.↓	Buenos días, Juan	A sentence final vocative in English is usually pronounced with a rising intonation pattern: Good morning, John.↑

[†] The number designates the test sentence in which the feature being evaluated appeared. The letter designates the feature itself, thus showing when more than one feature in a test sentence was evaluated.

TABLE 144

PERCENTAGE OF STUDENTS CORRECTLY ANSWERING EACH PRONUNCIATION (MIMICRY) ITEM TESTED AT THE END OF THE UAE COURSE, GIVING DESCRIPTION OF FEATURE TESTED AND PROBABLE ERROR*

Number of Item†	Feature Tested	Percentage of Students Answering Correctly	Description of Feature Tested	Stimulus Word	Probable Error
1a	rr	44	A multiple trill	perro	The English "growled" r as in parrot
2b	ƀ	34	Fricative or soft b (even though spelled v)	la ventana	The English v as in vent or the hard or stop b as in bent. In spite of the v in the spelling, it is not pronounced like an English v.
3c	ǥ	2	Fricative or soft g	legumbre	The stop or hard g as in lagoon or legation
4d	x	43	Spanish j (or jota) (pronounced with fairly strong friction noise)	traje	A much softer English h, as in tarheel or our hay
5e	ye	81	Two vowel letters (ie) pronounced in a single syllable. Siete is two syllables: sie-te.	siete	In English the most similar vowels are pronounced in separate syllables. Siete would be three syllables: si-e-te.
6f	đ	20	Fricative or soft d (Should sound like the th of weather)	dedos	The stop or hard d as in May day or deader

* The features of phonology are listed in the order in which they were presented to students on the final tests. The required student response was always a brief Spanish utterance. However, only the specific feature listed was evaluated.

† The number designates the test sentence in which the feature being evaluated appeared. The letter designates the feature itself, thus showing when more than one feature in a test sentence was evaluated.

TABLE 144 continued

Number of Item	Feature Tested	Percentage of Students Answering Correctly	Description of Feature Tested	Stimulus Word	Probable Error
7g	l	41	Spanish bright l (Should sound a little like the l in poodle or toddle)	azul	The English dark l as in spool or tool
8h	r	81	Spanish flapped r (Should sound a little like the d (or t) in pot o'tea and pedagogue)	para	The English "growled" r as in par a (hole) or parachute
9i	e	48	The simple or pure vowel e	café	The English diphthong, as in Fay or they
10j	o	65	The simple or pure vowel o	no	The English diphthong, as in know or go
11k	ă	57	Unstressed a, which retains the quality of a as in mano, even when unstressed	muchachas	The English obscured vowel as in churches or Brutus
12l	i	64	Spanish i (Should sound a little like the ee in seem)	simpática	The English vowel sound of sympathy or simpleton
12m	a	90	Spanish a (Should sound a little like the o in potter)	simpática	The English vowel sound of patter or path
13n	Rhythm	20	Syllables timed evenly: Tenemos una lección interesante.	Tenemos una lección interesante	Stressed syllables lengthened: Tenemos una lección interesante.

TABLE 144 continued

Number of Item✝	Feature Tested	Percentage of Students Answering Correctly	Description of Feature Tested	Stimulus Word	Probable Error
14o	Intonation of vocatives	81	Falling intonation on a vocative at the end of a sentence: Buenos días, Juan. ↓	Buenos días, Juan	A sentence final vocative in English is usually pronounced with a rising intonation pattern: Good morning, John. ↑

✝ The number designates the test sentence in which the feature being evaluated appeared. The letter designates the feature itself, thus showing when more than one feature in a test sentence was evaluated.

APPENDIX D

COPIES OF INSTRUMENTS USED IN COLLECTING DATA ON INDEPENDENT VARIABLES

CALIFORNIA STATE DEPARTMENT OF EDUCATION
SPANISH RESEARCH PROJECT D-177
STUDENT INFORMATION

(To be filled out by the teacher)

Name____

Teacher____

School____________________District____________________

Date____________________Method of Instruction____________

1. The student's IQ as reported in the cumulative folder is ____________

2. The average of the subject letter grades received by the student in the fifth grade, in terms of the numerical scale given below is____________

A equals 1	B equals 4	C equals 7
A- equals 2	B- equals 5	C- equals 8
B+ equals 3	C+ equals 6	D+ or less equals 9

3. The student's grade placement score in reading achievement is____________

4. The age of the student in months is____________________

5. The sex of the student is (Please check) Male______(1) Female______(2)

6. The occupation of the student's parents (guardian or stepparent where applicable). In the blanks below please write the number of the occupational class (from those listed) which best describes the occupation of each parent. Indicate if unemployed or deceased, using category (8) or (9).

Father____________

Mother____________

(1) Professionals and proprietors of large businesses (businesses estimated at a value of more than $5,000)

(2) Semi-professionals and lesser officials of large businesses
(3) Clerks and kindred workers
(4) Skilled workers
(5) Proprietors of small businesses (businesses estimated at a value of less than $5,000)
(6) Semi-skilled workers (including protective workers and service workers)
(7) Unskilled workers (including laborers and domestic servants)
(8) Unemployed
(9) Deceased

Note to the reader: The names of the intelligience and reading achievement tests and the dates of administration were also collected.

7. Please indicate with a check mark which one of the following categories the student falls into:

   Students who have had at least 2 semesters of Spanish ________(1)

   Students who have had some Spanish, but less than 2 semesters ________(2)

   Students who have had some scholastic training in a language other than English, but no scholastic training in Spanish ________(3)

   Students who have had no scholastic training in a language other than English ________(4)

8. Please find out from the student whether or not Spanish is spoken fairly regularly in the student's home. Yes____(1); No____(2)

CALIFORNIA STATE DEPARTMENT OF EDUCATION

SPANISH RESEARCH PROJECT D-177

STUDENT QUESTIONNAIRE*

Name___________________________________ Grade_______ Date____________________

School_________________________________ School District____________________

To the student

Beginning on the next page are a list of sentences. If you agree with the sentence, mark an X under true. If you do not agree, mark an X under false. These marks should tell us what you think not what someone else thinks. Your teacher will not be told of your answers and they will have no effect on your grade.

Two examples are given on this page. In both cases these were marked by a person who likes ice cream.

Example

	True	False	
1.	X		I like ice cream.
2.		X	I do not like ice cream.

Now turn the page and begin answering the items.

---

* Produced by System Development Corporation in performance of California State Department of Education Contract No. 2591.

September 1964

	True	False	
1.	_____	_____	Even if I work very hard, I don't think I'll do well in Spanish.
2.	_____	_____	I think anyone who makes good grades in English can learn Spanish.
3.	_____	_____	Since they are giving us new things to study, I am glad it is Spanish.
4.	_____	_____	Studying Spanish might help to improve your English.
5.	_____	_____	Spanish would be my first choice if I could choose all my subjects.
6.	_____	_____	I think Spanish will be harder to learn than my other subjects.
7.	_____	_____	I would like to have Spanish every day rather than just two or three days a week.
8.	_____	_____	If you could not speak Spanish, it would not be fun to spend a summer in a Spanish speaking country.
9.	_____	_____	I think Spanish will be an easy language to learn.
10.	_____	_____	I would like to make friends with some Spanish people.
11.	_____	_____	I am a little worried that I will not do as well in Spanish as in my other subjects.
12.	_____	_____	Knowing Spanish helps you with most things you do.
13.	_____	_____	I would like to learn Spanish even if it meant less time for some other subject.
14.	_____	_____	Spanish would be my last choice if I could choose all my subjects.
15.	_____	_____	If I do well in Spanish, I'll be surprised.

SCORING KEY

STUDENT QUESTIONNAIRE

PRE- AND POSTTRAINING

Interest Items

Item Number	Positive Response
3	T
5	T
7	T
13	T
14	F

Confidence Items

Item Number	Positive Response
1	F
6	F
9	T
11	F
15	F

Note: Items 2, 4, 8, 10, 12 did not count in either the interest or confidence scores.

CALIFORNIA STATE DEPARTMENT OF EDUCATION
SPANISH RESEARCH PROJECT D-177
TEACHER BACKGROUND QUESTIONNAIRE

Teacher's Name ____

School ______________________________ District ____________________

Date ____________________ Method of Instruction ________________________

1. Do you have an academic degree beyond the bachelor's degree? (Please check)

   YES ________(1); NO ________(2)

2. Please indicate with a check mark which one of the following categories describes you:

   Teachers whose native language is Spanish ________(1)

   Teachers who have studied Spanish in a country where the language is spoken natively, but who are not native speakers ________(2)

   Teachers who have had at least 2 semesters (or the equivalent in quarter hours) of college training in Spanish, but have not studied Spanish in a country where it is natively spoken and are not native speakers ________(3)

   Teachers who have had some college training in Spanish, but less than 2 semesters, and/or some high school training in the language, but have not studied Spanish in a country where it is spoken natively and are not native speakers ________(4)

   Teachers who have had some academic training in a foreign language other than Spanish, but none in Spanish, and are not native speakers of Spanish ________(5)

   Teachers who have had no academic training in a foreign language ________(6)

3. If you are not a native speaker of Spanish and you have not studied Spanish in a country where it is spoken natively, please indicate which of the following categories describes you:

   Teachers who have traveled in a country where Spanish is a native language ________(1)

Note to the reader: Items 1, 3, and 6 were not included in the analysis.

Teachers who have traveled in a country where a foreign language other than Spanish is spoken, but have not traveled in a country where Spanish is spoken __________(2)

Teachers who have not traveled in a country where a foreign language is spoken __________(3)

4. Please indicate with a check mark which one of the following categories describes you:

Teachers who have had at least five years' experience as instructors in the speaking of Spanish __________(1)

Teachers who have had some experience, but less than five years as instructors in the speaking of Spanish __________(2)

Teachers who have had some experience as instructors in the speaking of some foreign language other than Spanish, but who have had no experience as instructors in the speaking of Spanish __________(3)

Teachers who have had no experience as instructors in the speaking of a foreign language __________(4)

5. How would you describe your present fluency in Spanish? (Please check one of the following)

Little or no fluency at all __________(1)
Some fluency __________(2)
Native or near-native fluency __________(3)

6. Please list other foreign languages in which you have some fluency__________

____

7. Please list your age in terms of the following general categories:

20s__________(1) 40s__________(3)
30s__________(2) 50s__________(4) 60 or more__________(5)

8. Sex: Male_________(1); Female_______(2)

THANK YOU VERY MUCH FOR YOUR COOPERATION.

CALIFORNIA STATE DEPARTMENT OF EDUCATION
SPANISH RESEARCH PROJECT D-177
TEACHER QUESTIONNAIRE

Your answers to these questions are to be used only in statistical analysis and will not be connected with your name beyond the initial stage of data processing.

Name____

School__________________ District__________________

Date__________________

1. What degree of difficulty do you feel is involved in learning Spanish as compared to learning other foreign languages? (Please check one)

   More difficult than most other languages (1)__________
   About as difficult as most other languages (2)__________
   Less difficult than most other languages (3)__________

2. Which of the following statements is closest to your feeling about sixth graders being taught Spanish? (Please check one)

   It is extremely worthwhile (1)__________
   It is fairly worthwhile (2)__________
   It can't do any harm (3)__________
   It should not be undertaken (4)__________

3. To what extent do you feel you will enjoy teaching Spanish to sixth graders in this project? (Please check one)

   Very much __________(1)
   Pretty much __________(2)
   Somewhat __________(3)
   Not very much __________(4)
   Not at all __________(5)

4. How much emphasis do you feel should be placed on the learning of a foreign language in comparison to other subjects normally taught at this level? (Please check one)

   More emphasis than for the average subject (1)__________
   About as much emphasis as for the average subject (2)__________
   Less emphasis than for the average subject (3)__________

****

Note to the reader: Item 2 was used to measure the teacher's attitude toward teaching Spanish to sixth graders. Item 3 was used to measure the teacher's enjoyment in teaching a project class. The other two items were not analyzed.

CALIFORNIA STATE DEPARTMENT OF EDUCATION
SPANISH RESEARCH PROJECT D-177
FINAL CLASS VISIT REPORT---MLA

Name of teacher____________________ School____________________

District____________________ Period begins____________________

Period ends____________________

A. USE OF SUPPLEMENTARY MATERIALS

1. Visuals:	Suggested in course (circle one)	YES	NO
	Other	YES	NO

If other, specify____________________

2. Records or tapes:	Suggested in course	YES	NO
	Other	YES	NO

If other, specify____________________

3. Songs and/or games:	Suggested in course	YES	NO
	Other	YES	NO

If other, specify____________________

4. Films or film strips: YES NO

If yes, specify____________________

5. Other text materials: YES NO

If yes, specify____________________

6. Tests:	Short (less than half the period)	YES	NO
	Long (full period)	YES	NO

If yes, describe the test____________________

7. Any other type of material: (specify)____________________

## *B. TEACHER PREPAREDNESS

1. Was the teacher usually familiar with the lesson prior to class? YES NO

2. Had she usually arranged and ordered her material prior to class? YES NO

*Note to the reader: Those items marked with an asterisk were not included in the analysis of data.

3. Did she generally use all the essential parts of the lesson? YES NO

*C. STUDENT PARTICIPATION

1. How many times on the average were choral responses called for? (Check one)

a. Not at all_____ c. 20 to 39_____ e. 60 or more_____
b. Up to 19 _____ d. 40 to 59_____

2. Usually what proportion of the class was called upon to respond individually at least once? (Check one)

a. Most of the class _____ c. Only a few students_____
b. About half the class_____ d. None _____

3. Where individual responses were called for, the teacher generally tended to call upon the same few students over and over. (Circle one) YES NO

*D. CORRECTION OF STUDENT ERRORS

The teacher corrected mistakes (Check one) a. Frequently_____
b. Rarely _____

E. AMOUNT OF ENGLISH SPOKEN IN THE CLASS

1. How often did the teacher speak English in the Spanish class? (Check one)

a. Rarely _____ c. Frequently _____
b. Now and then_____ d. Almost always_____

2. How often did the students speak English in the Spanish class? (Check one)

a. Rarely _____ c. Frequently _____
b. Now and then_____ d. Almost always_____

*F. VARIETY OF ACTIVITY IN THE CLASSROOM

1. In comparison with other classes using MLA materials, how frequently did this class have a change of activity during a typical session?

a. More often than average _____
b. About as often as the average_____
c. Less often than average _____

2. Were there periods when there was noticeable silence in the classroom? (Check)

a. Frequently _____ c. Rarely_____
b. Now and then_____

* Not included in the analysis of data.

*G. RATE OF INTRODUCTION OF COURSE MATERIAL

The class has met for a total of _____ hours during the year.

*H. CLASSROOM ENVIRONMENT

1. Could the teacher be heard clearly all around the room? (Circle one)
   YES NO

2. Could student responses generally be heard clearly around the room?
   YES NO

I. MODELING

How often did the teacher model? (Check one)

a. Almost always_____
b. Frequently _____
c. Now and then _____
d. Rarely_____
e. Never _____

CHECK LIST FOR DESCRIPTIVE AND ANECDOTAL COMMENTS

1. Timing, pacing. The timing or pacing of instruction tended to be (a)faster than average; (b) average; or (c) slower than average. Please explain the basis for your judgment.

2. Discipline. Was class discipline maintained? If no, explain. We are interested only in the extent to which discipline affects the instruction.

3. Rapport. Rapport between the teacher and students was (a) above average, (b) average; or (c) below average. Elaborate.

4. Regular or substitute teacher. Was this class taught by the regular teacher or by a substitute teacher?

Note to the reader: Descriptive and anecdotal comments were read for background, but were not subjected to formal analysis.

5. Physical arrangement. Was the physical arrangement of the class, e.g., seating, conducive to maintaining the attention of all the students? Explain.

6. Circulation of teacher. Did the teacher move freely among the pupils or did he generally sit at his desk or tend to stand in one spot?

7. Nonverbal aspects. Did the teacher provide a good model of the nonverbal aspects of the Spanish language, e.g., gestures, voice level? If not, please explain.

8. Supplementary materials. Comment on the manner of using whatever supplementary materials were introduced.

9. Use of English. For what purposes was English used in the Spanish class by the teacher?

By the students?

10. Student attitude. Mark an X in the box below that best indicates the attitude that was reflected generally in the students' behavior in class.

Very negative:_____:_____:_____:_____:_____:_____:_____:Very positive

1 2 3 4 5 6 7

CALIFORNIA STATE DEPARTMENT OF EDUCATION
SPANISH RESEARCH PROJECT D-177
FINAL CLASS VISIT REPORT---SPA

Name of teacher______________________ School__________________

District______________________ Period begins______________
Period ends______________

A. USE OF SUPPLEMENTARY MATERIAL

1.	Visuals	Suggested in course (Circle one)	YES	NO
		Other	YES	NO

If other, specify______________________________

2.	Songs and/or games:	Suggested in course	YES	NO
		Other	YES	NO

If other, specify______________________________

3.	Films or film strips:	Suggested in course	YES	NO
		Other	YES	NO

If other, specify______________________________

*4.	Other text materials:		YES	NO

If yes, specify______________________________

*5.	Tests:	Short(less than half the period)	YES	NO
		Long (full period)	YES	NO

If yes, describe the test______________________________

6. Any other type of material (specify)______________________

B. CLASSROOM ENVIRONMENT

1.	Is there generally activity going on in the room at the time students are using the program?	YES	NO
2.	Are students using the program usually under supervision?	YES	NO
3.	Do students have access to machines other than during regularly scheduled sessions?	YES	NO

If so, when and for how long?______________________________

*Note to the reader: Those items marked with an asterisk were not included in the analysis of data.

C. DISPLAY SESSIONS

1. How often are display sessions held?____________________

*2. How long is the display session?________________________

*3. Is the display session guide provided by the program usually followed?
YES NO

*4. How often does the classroom teacher speak English in display sessions? (Check one)

a. Rarely ________ c. Frequently ________
b. Now and then________ d. Almost always________

*D. RECORDING WRITTEN RESPONSES TO PROGRAM

Students write their responses to the programmed stimuli in (Check one)

a. The program books ________
b. Separate answer sheets________

†CHECK LIST FOR DESCRIPTIVE AND ANECDOTAL COMMENTS

1. Discipline. Was class discipline maintained? If no, explain. We are interested here only in the extent to which discipline affects the instruction.

2. Supplementary materials. Comment on the manner of using whatever supplementary materials were introduced.

3. Use of English. For what purposes was English spoken in the display sessions? By the teacher?

By the students?

---

* Not included in the analysis of data.

† Descriptive and anecdotal comments were read for background, but were not subjected to formal analysis.

4. Teacher use of program. Did the teacher go through the program himself?

5. Physical arrangement. How many stations are set up? In what manner is the use of the stations scheduled? What is the ratio of machines to students in the class?

6. Distracting noise in classroom. Was there other activity going on in the class while students were using the machines? If so, was this other activity distracting to the students on the machines? Was the noise made by students using the machines distracting to the rest of the class? Describe fully.

7. Interaction among pupils. Were pupils aware of what others were doing around them? Was there any interaction among pupils while they were using the program? Describe.

8. Pupil response to program. Did pupils speak up in working with the program? Were they reminded by the teacher to do so?

9. Operational problems. What problems did the students encounter in operating the tape recorder and the text? Did the teacher help them? Did the pupils ask for such help? Was the teacher able to spot pupils who had difficulty in using the materials? Elaborate.

10. Student attitude. Mark an X in the box below that best describes the attitude that was reflected generally in the students' behavior in class.

Very negative:_____:_____:_____:_____:_____:_____:_____:Very positive

1 2 3 4 5 6 7

CALIFORNIA STATE DEPARTMENT OF EDUCATION
SPANISH RESEARCH PROJECT D-177
FINAL CLASS VISIT REPORT---UAE (TV DAY)

Name of teacher______________________________ School____________________________

District____________________________________ Period begins___________________

Period ends_____________________

A. WARM-UP AND FOLLOW-UP SESSIONS

1. Is there generally a warm-up session? (Circle one) YES NO

If yes, how long usually________

*2. What model is generally used during the warm-up session?

a. Classroom teacher? YES NO
b. Recording? YES NO
c. Native-speaking student? YES NO

3. Is there generally a follow-up session?

If yes, how long usually________

*4. What model is generally used during the follow-up session:

a. Classroom teacher? YES NO
b. Recording? YES NO
c. Native-speaking student? YES NO

*B. TV RECEPTION

1. The picture is usually (check one) good_____. poor_____.

2. The sound is usually good_____. poor_____.

3. How many TV sets are used for the Spanish class in this room?__________

4. The picture can be seen clearly in the room (Check one)

a. by all the students_____.
b. by most students _____.
c. by some students _____.
d. by only a few students _____.
e. by none of the students_____.

5. What is the number of students in the viewing group?_____

*Note to the reader: Those items marked with an asterisk were not included in the analysis of data.

C. STUDENT PARTICIPATION

1. What proportion of the class usually participated in the responses called for? (Check one)

a. Most of the class _____ c. Only a few students_____
b. About half of the class_____ c. None _____

2. Does the classroom teacher generally respond to the TV teacher along with the students? (Circle one) YES NO

CALIFORNIA STATE DEPARTMENT OF EDUCATION
SPANISH RESEARCH PROJECT D-177
FINAL CLASS VISIT REPORT---UAE (NON-TV DAY)

Name of teacher______________________ School______________________

District______________________ Period begins______________________

Period ends______________________

*A. USE OF SUPPLEMENTARY MATERIALS

1.	Visuals:	Suggested in course (Circle one)	YES	NO
		Other	YES	NO

If other, specify______________________

2.	Records or tapes:	Suggested in course	YES	NO
		Other	YES	NO

If other, specify______________________

3.	Songs and/or games:	Suggested in course	YES	NO
		Other	YES	NO

If other, specify______________________

4. Films or film strips: YES NO

If yes, specify:______________________

5. Other text materials: YES NO

If yes, specify:______________________

6.	Tests:	Short (less than half the period)	YES	NO
		Long (full period)	YES	NO

7. Any other type of material: (specify)______________________

*B. TEACHER PREPAREDNESS

1.	Was the teacher usually familiar with the lesson prior to class?	YES	NO
2.	Had she usually arranged and ordered her material prior to class?	YES	NO
3.	Did she generally use all the essential parts of the lesson?	YES	NO

*Note to the reader: Those items marked with an asterisk were not included in the analysis of data.

*C. STUDENT PARTICIPATION

1. How many times, on the average, were choral responses called for? (Check one)

a. Not at all____
b. Up to 19 ____
c. 20 to 39____
d. 40 to 59____
e. 60 or more____

2. Usually what proportion of the class was called upon to respond individually at least once? (Check one)

a. Most of the class ____
b. About half the class____
c. Only a few students____
d. None ____

3. Where individual responses were called for, the teacher generally tended to call upon the same few students over and over. (Circle one)
YES NO

*D. CORRECTION OF STUDENT ERRORS

The teacher corrected mistakes (Check one)
a. Frequently____
b. Rarely ____

E. AMOUNT OF ENGLISH SPOKEN IN THE CLASS

1. How often did the teacher speak English in the Spanish class? (Check one)

a. Rarely ____
b. Now and then____
c. Frequently ____
d. Almost always____

2. How often did the students speak English in the Spanish class? (Check one)

a. Rarely ____
b. Now and then____
c. Frequently ____
d. Almost always____

*F. VARIETY OF ACTIVITY IN THE CLASSROOM

1. In comparison with other classes using the TV program, how frequently did this class have a change of activity during a typical non-TV session?

a. More often than average ____
b. About as often as the average____
c. Less often than average ____

---

*Not included in the analysis of data.

2. Were there periods when there was a noticeable silence in the classroom? (Check)

   a. Frequently _____
   b. Now and then_____
   c. Rarely _____

*G. CLASSROOM ENVIRONMENT

1. Could the teacher usually be heard clearly all around the room? (Circle one) YES NO

2. Could student responses generally be heard clearly around the room? YES NO

3. What is the number of students in the class?_____

H. MODELING

*1. Is a native-speaking student used for modeling? YES NO

*2. Is a tape or record used for modeling? YES NO

3. Did the classroom teacher model? YES NO

†CHECK LIST FOR DESCRIPTIVE AND ANECDOTAL COMMENTS--

1. Timing, Pacing. The timing or pacing of instruction tended to be (a) faster than average; (b) average; or (c) slower than average. Please explain the basis for your judgment.

2. Discipline. Was class discipline maintained? If no, explain. We are interested only in the extent to which discipline affects the instruction.

3. Rapport. Rapport between the teacher and students was (a) above average; (b) average; or (c) below average. Elaborate.

---

*Not included in the analysis of data.

†Descriptive and anecdotal comments were read for background, but were not subjected to formal analysis.

4. Regular or substitute teacher. Was this class taught by the regular classroom teacher or by a substitute teacher?

5. Physical arrangement. Was the physical arrangement of the class, e.g., seating, conducive to maintaining the attention of all the students? Explain.

6. Circulation of teacher. Did the teacher move freely among the pupils or did he generally sit at his desk or tend to stand in one spot?

7. Supplementary materials. Comment on the manner of using whatever supplementary materials were introduced.

8. Use of English. For what purposes was English used in the Spanish class by the teacher? By the students?

9. Student attitude. Mark an X in the box below that best indicates the attitude that was reflected generally in the students' behavior in class.

Very negative:_____:_____:_____:_____:_____:_____:_____:Very positive

1 2 3 4 5 6 7

10. Frequency of session. How many TV programs per week does this class view, and how many total periods per week is the class scheduled?

CALIFORNIA STATE DEPARTMENT OF EDUCATION
SPANISH RESEARCH PROJECT D-177
IMPLEMENTATION QUESTIONNAIRE

Name of District____________________County________________________________

1. Number of classes in the district taking part in the research project at the time classroom instruction began, by method of instruction:

MLA____________; Una aventura española____________; Spanish A____________.

COST FACTORS

2. Total cost of equipment,[1] including installation, for project classes in this district, broken down (or prorated) by method of instruction (including all sources, such as NDEA, etc.):

   $________MLA; $__________Una aventura española; $_________Spanish A.

   What items are included in this total cost figure in addition to those acquired through an NDEA grant? (specify method of instruction)

____

____

3. Total cost of materials[2] for project classes in this district, broken down (or prorated) by method of instruction (including all sources, such as NDEA, etc.):

   $_________MLA; $_________Una aventura española; $_________Spanish A.

   What items are included in this total cost figure in addition to those acquired through an NDEA grant? (specify method of instruction)

____

____

---

[1] equipment includes tape recorders, projectors, screens, TV sets, TV antennae, TV cables, record players, etc.

[2] materials includes booklets and other text materials, films, film strips, records, tapes, etc.--anything that contains subject matter content.

4. Total cost of in-service training for project teachers in this district, broken down (or prorated) by method of instruction (including all sources, such as consultants or additional personnel paid out of district funds; consultants paid under NDEA, estimated at $100 per day; travel expenses of teachers who participate in in-service meetings; or the cost-accounting of regular district personnel.):

$__________MLA; $__________Una aventura española; $__________Spanish A.

5. Total maintenance cost for project classes in this district broken down (or prorated) by method of instruction (including all sources, such as the cost accounting of district personnel or payments made to an outside agent):

$__________MLA; $__________Una aventura española; $__________Spanish A.

List the kinds of maintenance jobs involved in this total cost figure as broken down (or prorated) by method of instruction: ____________________

____

PERSONNEL

6. How were teachers recruited for the project (please check appropriate blanks):

a. Accepted all volunteers.

MLA__________; Una aventura española__________; Spanish A__________.

b. Selected from among volunteers.

MLA__________; Una aventura española__________; Spanish A__________.

c. Selected from among all teachers available.

MLA__________; Una aventura española__________; Spanish A__________.

If selections were made, what were the bases for selection (specify method of instruction): ______________________________

____

7. Where were the teachers for the project found? (Please list the number of teachers in the appropriate blanks)

a. Among district teachers.

MLA__________; Una aventura española__________; Spanish A__________.

b. Outside the district.

MLA__________; Una aventura española__________; Spanish A__________.

TIME FACTORS

8. Please estimate the number of hours spent by each type of office or person listed below in connection with the research project.

a. Superintendent's office: ___________prior to the beginning of instruction

___________during the school year

Please list the activities that are included in this time estimate:

____

____

b. Business office: ___________prior to the beginning of instruction

___________during the school year

Please list the activities that are included in this time estimate:

____

____

c. Maintenance technician: ___________prior to the beginning of instruction

___________during the school year

Please list the activities that are included in this time estimate:

____

____

d. Supervisors: ___________prior to the beginning of instruction

___________during the school year

Please list the activities that are included in this time estimate:

____

____

e. Principals: ___________prior to the beginning of instruction

___________during the school year

Please list the activities that are included in this time estimate:

____

____

f. Teachers: __________prior to the beginning of instruction

__________during the school year

Please list the activities that are included in this time estimate:

____

____

9. If instruction was given in a room other than an ordinary classroom, where was it given?

____

If there are any other comments which you might have regarding the implementation of any of these Spanish programs, please use this space:

Thank you very much for your help.

APPENDIX E

PERT ANALYSIS OF THE PROJECT

PERT ANALYSIS OF THE PROJECT

In conducting a large scale research project---particularly one involving classrooms located across the width and breadth of the entire state of California and hundreds of students---administration is a crucial and time-consuming function. This project involved a fulltime staff of six professional people and a secretary, several special consultants, each of whom devoted a number of days to the project, part-time clerical help and several professional people in a co-contracting organization. The coordination of the efforts of all these people was a problem of major concern. An extremely useful tool which can be brought to bear on such a problem is the Program Evaluation and Review Technique (PERT).

The introduction of PERT into educational research and development projects is a relatively new thing. The technique originated in connection with a project begun in 1958 by the Navy Special Projects Office to study the application of statistical and mathematical methods in the management and coordination of a major research and development program---the Fleet Ballistic Missile Program, better known as the Polaris submarine.

The PERT technique is novel in eliminating the traditional bar charts for showing schedules and substituting a network showing graphically the inter-relationships among activities and the systems of contingencies that lead to the ultimate completion of the project.

About halfway through the current project, it was decided to develop a PERT network for it in order to gain a clearer perspective of the overall pattern of activities and to determine the feasibility of the PERT technique in the conduct of a statewide field test of instructional programs. It was thought that starting a PERT analysis even halfway through the project might provide some insight into possible difficulties in completing the project.

Description of Central Concepts in PERT

It has been said that PERT will not save your life, but it will tell you what is killing you. There is nothing magical about the technique. It is simply a tool of administration that if properly applied, will result in a more thorough, more detailed, and more precise analysis of the job to be done than would probably be made otherwise. It must be continually revised to be maximally useful.

The PERT network is like a map showing the administrator how to get from one point to another---from the beginning of his project to its completion. The network will very likely involve several paths to the goal, some shorter than others. The longest of such paths is called the critical path because the project cannot possibly be completed in less time than it takes to complete the longest sequence of activities.

The network is constructed of lines and circles. Each circle, called an event, represents the completion of one activity and the subsequent beginning of the next activity in the chain. Each line, between two events represents an ongoing activity. Each activity acts as a constraint on the activity immediately following. That is, an activity cannot commence until all those which lead into it are completed.

There is an expected elapsed time for each ongoing activity. This parameter may be a single estimate of the time it will take to complete an activity, or it may be a statistically weighted average of the most optimistic estimate, the most pessimistic estimate and an estimate of the most likely time.

The most optimistic estimate of the expected elapsed time is that length of time one would expect the activity in question to take if performed under absolutely ideal conditions, generally considered to occur only about once in a hundred times, if one were to perform the identical activity one hundred times.

The most pessimistic time estimate is that time one would expect the activity to take if everything imaginable went wrong, if every conceivable problem in the completion of the activity arose. This is predicted to occur about once in a hundred times.

The most likely time is the most realistic estimate of the time an activity might consume. If a job were repeated many times under similar circumstances, say 100 times, enabling one to construct a distribution of the length of time the job took in each repetition, the modal value of that distribution would be the most likely time estimate for that job.

When the expected elapsed time for each activity has been computed, it is then possible to determine the critical path along the network from the beginning of the project to the completion of the final activity. The expected elapsed times for all activities along a given path through the network are added together, and the longest time to traverse a path from beginning to end indicates the critical path.

The expected elapsed time is also used to compute the earliest expected date and the latest allowable date for the completion of a given activity. The earliest expected date is computed by adding together the expected elapsed times along the longest path to any given event. It may be converted to a calendar date. The latest allowable date for the completion of a given activity is computed by subtracting the sum of the expected elapsed times for activities from the terminal point in the project along the longest path back to the event in question. The latest allowable date is the latest calendar date on which a given event can occur without slowing down the progress of the project. The latest allowable date for the last event, the end of the project, may be a directed date specified in a project contract. In the absence of a directed date, the latest allowable date will coincide with the earliest expected date for the end of the project.

Every event, i.e., the completion of every activity in the project, has a latest allowable and an earliest expected date. The difference between these two figures is called slack, which may be either positive, negative, or zero. If the earliest expected date is earlier than the latest allowable date, slack is positive and no difficulty in the scheduling of activities is anticipated. However, if the earliest expected date for the completion of an activity is later than the latest allowable date, a trouble spot is indicated. Negative slack indicates that a reallocation of resources is necessary in order to avoid a delay. Low positive slack indicates that if any time estimate involves a relatively high degree of error, a problem could easily arise.

Application of PERT to the Project

The PERT network for the project can be seen in the figure.[1] No time estimates are given for activities in the network because it was felt that the expected elapsed times used in this study would be inappropriate in any other setting. Time estimates must be based upon the resources available, and these will vary considerably from one location to another. The network is meant only to be suggestive as to the kinds of activities and their inter-relationships in a large-scale field test of instructional programs. However, some time estimates, particularly those along the critical path are discussed in the text.

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[1] A PERT network of the project follows page 439.

The length of an activity line is unrelated to the expected elapsed time for the activity represented by that line. This spatial constraint would have made the construction of the network unduly complex without a commensurate increase in usefulness. The numbers in the circles have no significance other than identification of an activity. Each activity has a predecessor event and a successor event, both of which are numbered, and the activity is identified in the network by these numbers. For example, the hiring of field consultants is represented by 01-02. The heavy black line through the network represents the critical path.

The estimation of time for the completion of an activity is generally computed in terms of actual man-weeks, meaning that one man working full time on this activity would take so many weeks or a fraction of a week to complete it. The usual assumption made in using PERT is that "the manpower or other resources will be available when and as needed and using average work schedules (i.e., 8 hour day)." (Cook, 1964, p. 10).[2] However, it should be pointed out that in the actual practical operation of the project, the number of man-weeks was not the most useful time estimate in every case.

The reality of the situation was that frequently the allocation of resources for a given activity was completely out of the hands of the project staff. For example, the printing of test booklets for the project was done in the California State Printing Office. The State Printing Office has its prescribed system of priorities for the completion of jobs. Consequently, it was necessary to estimate the length of time that should be allowed from the submission of test masters to the Printing Office to the delivery of the printed booklets back to the project. The State Printing Office requested that a minimum of six weeks be allowed for the completion of the job. This did not mean that one man working full-time (a normal eight-hour day for five days a week) would take six weeks to complete the printing, but rather that it would be six weeks before they could work the job into their system of priorities and finish it.

Another example of this lack of control over time estimates was in regard to the scoring of speaking tests. In the network, the scoring of speaking tests is represented by 51-52, which was estimated to take six weeks. At the time this estimate was made, it was known that there would be five scoring judges working on this activity. Four of them were full-time Spanish teachers and, consequently, could devote only a few hours each week to the project. The fifth judge was to work full-time on scoring. Considering the amount of time the judges could spend on this activity, it was estimated that the most optimistic time was four weeks, the most pessimistic time was eight weeks, and the most likely time was six weeks. Using these estimates in the formula $(a + 4m + b)/6$ produced an expected elapsed time of six weeks, meaning that with all five judges working, it would be six weeks before the scoring of the speaking tests would be completed and the next activity, the card punching of the speaking tests could commence. Figuring this time in man-weeks would not have been meaningful in the scheduling of activities. As it turned out, the scoring of the speaking tests was spread over a five-month period, from August 15, 1965 to January 14, 1966, 22 weeks, nearly four times as long as originally anticipated. Needless to say, this length of time resulted in rather formidable negative slack. Unfortunately, this error was simply not foreseeable. The activity was without precedent, involving scoring procedures which were devised specifically for the tests used in the project.

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[2] Cook, Desmond L. An Introduction to PERT. Occasional Paper 64-156. Columbus, Ohio, The Bureau of Educational Research and Service, The Ohio State University, 1964.

The length of the critical path was 92.5 weeks. A sequence of eleven activities fell along this path. First was 01-02, the hiring of field consultants. It was expected to take 15 weeks to identify the available qualified personnel, conduct negotiations, and consummate the formalities necessary before they could begin to work. Next along the critical path was the recruiting of districts (02-08, 11 weeks). Since the field consultants were key personnel in the recruiting of districts, the consultants should have been hired prior to the recruiting. As was pointed out in the chronological account of the project, however, due to the short lead time it was impossible to wait until field consultants had been hired to begin recruiting districts. Consequently, it was necessary to employ several temporary consultants to begin this activity. This illustrates the kind of solution that must be sought when negative slack is found in the network.

Since the hiring of the field consultants would not begin until the contract had been signed between the USOE, System Development Corporation and the California State Department of Education, the hiring could not be completed until well after the recruiting of districts had to begin. This meant that the earliest expected date for the completion of the hiring of field consultants was later than the latest allowable date. The solution to this problem of negative slack was to hire temporary personnel to begin the recruiting. Since the hiring of temporary personnel was only a stopgap and was not a recommended step in the conduct of the project, it was not included in the PERT network.

The hiring of a research consultant is represented by 01-04. It can be seen that the sampling of classes and the development of several of the data collection instruments depended upon the availability of a research consultant. Ideally, this person would have been hired early enough to participate in the design phase of the project, prior to funding. There is, of course, the problem just mentioned, that personnel to be recruited specifically for this project could not be hired until the contract with the funding agency had been signed. Consequently, the person responsible for most of the research-oriented activities of the project was not available to participate in the planning for those activities.

Following the recruiting of districts, it was necessary to obtain equipment and materials for use in the courses to be installed. This again was an activity which was essentially outside the control of the project staff. Procuring equipment and materials is represented by 08-16, 08-17, 08-18, one line for each course of instruction. It was considered necessary to include a separate line for each course of instruction because the estimated time for procuring equipment and materials varied from one course to another. It can be seen that the procurement of equipment and materials leads into the conduct of the first half of the instructional program.

The procurement of equipment and materials constitues a constraint on the beginning of instruction in Spanish. To simplify the network, the events which represent the completion of the equipment and materials procuring stage are joined together in a common constraint on the beginning of instruction. The broken line joining these events to the beginning of instruction is a dummy constraint, i.e., it does not represent an activity itself, but it does indicate what has to be completed before the succeeding activity can begin. Another example of this type of network construction can be seen where the development of the final test, 23-32, leads into several activities, the termination of which constitute a joint constraint upon the administration of final tests.

One external constraint which does not show directly in the network was the school year itself. Obviously Spanish classes could not begin until school had opened in the fall and could not continue after school had closed in the spring. Thus all the instruction and data collection had to be completed during this time. Activity 19-24 indicates the conduct of the first half of the instructional program. The expected elapsed time was 15 weeks. In other words, it was estimated that it would take approximately 15 weeks to complete the first half of the program.

It is very likely that this parameter varied somewhat from course to course. It would have been meaningful, perhaps, to construct separate paths for each course of instruction, but this would have complicated the network unduly.

In terms of calendar dates, this 15-week period meant that if instruction could begin the first week in October it would reach the halfway point during the middle of January. Administering the midterm test to any single class (24-27) was expected to take one week. Obviously it did not require a week to administer a midterm test. However, the scheduling of testing for a number of classes reaching the midway point relatively close together was a problem. Consequently, an average of a week had elapsed between the completion of the last unit in the first half of the program and the test administration. Since it would have been inadvisable to begin the second half of the program prior to the testing for the first half, it was necessary to make testing a constraint upon the continuation of instruction.

Activity 24-28 is labeled the administration of the midterm to all UAE-MLA classes. It was considered necessary to reflect (in the network) the total length of time required for the administration of all midterm tests as well as the length of time necessary to test a single class. Activity 24-29 represents the administration of the midterm test to all SPA classes, and this activity was given 12 weeks. It was thought useful to represent this separately because the administration of tests to SPA classes posed special problems due to the self-pacing feature of the program. The policy in testing students taking this course was to wait until several of them had finished the first half of the program and then to administer the test in a group to those students. In a number of cases, this meant making more than one trip to a class to administer the midterm. Those students who had taken the midterm continued into the second half of the program, regardless of the other students who had not finished the first half.

It was not considered practical to attempt to administer the test individually to students taking SPA. It would have been impossible for the field consultant to make so many trips to a single class. An alternative might have been to allow the teacher to administer the midterm test individually to each student as he reached the midpoint in the program. However, in order to maintain test security, it was deemed inadvisable to leave the test materials at the school for any length of time. Administering the midterm tests to all classes was not included in the same path as the second half of instruction because it was not necessary to have tested all classes before continuing instruction in those classes that had been tested.

The second half of the program was estimated to take 14 instead of 15 weeks, due to the improved efficiency of the teacher.

Following the conduct of the second half of the program was the administration of the final test, represented by activity 41-42, and 41-43. Student and teacher postinstruction attitude instruments and the teacher background questionnaire were also administered at this time.

Activity 41-42 represents the administration of the final tests to a single class, whereas activity 41-43, which is on the critical path, represents the administration of the final tests to all classes. It was considered advisable to complete the testing before beginning the processing of data. The processing of these data include activities 43-55, 43-56, and 43-57, representing the processing of listening comprehension tests, teacher background questionnaire and both pre- and postinstruction teacher attitude questionnaires, and the postinstruction student attitude questionnaire respectively. Processing each of these different data instruments was indicated separately in the network because of the differences among them in expected elapsed time. The processing of the final listening comprehension tests was expected to take the longest time, four weeks.

Following the processing of data was the punching of cards. The punching of the final listening comprehension tests is represented by 55-58. The last two activities in the critical path were the analysis of the data and the preparation of the final report, each expected to take eight weeks. As it turned out, these were under-estimates.

The most time-consuming activities in the network, other than the recruiting of staff and the conducting of the program of instruction, which have already been discussed, were those activities concerned with the development of tests. Activity 01-07 representing the linguistic analysis of instructional programs was estimated to take 12 weeks. The development of the pretest, activity 01-06, nine weeks, was carried on concurrently with the linguistic analysis. The pretest was based on elements common to all three programs, so these elements had to be identified first. The development of the student attitude questionnaire, 01-05, eight weeks, was also concurrent with the linguistic analysis.

Following the linguistic analysis was the development of the midterm tests, 07-23, taking 14 weeks, and then the development of the final tests, 23-32, taking 26 weeks. Activity 23-24, feeding from the activities of System Development Corporation back into the critical path, was the printing of the midterm test, taking almost six weeks. The printing of course, had to be accomplished before the test could be administered.

The development of the final tests leads into several activities which include the printing of the final test booklets, the duplicating of instructions for the administration of final tests (including the scripts of the tests), and the development of scoring procedures for the speaking tests.

As mentioned earlier, all of these activities serve as a joint constraint on the administration of final tests, as indicated by the constraining line that feeds back into the critical path at event 41, the completion of the second half of the instructional program. Event 41, quite naturally, is a kind of focal point in the network, as one would expect the termination of instruction to be. The other major focal point in the network is event 58, which indicates the beginning of data analysis. Nine different activities feed into event 58. All of these nine involve the punching of different data instruments; 1) pretest; 2) preinstruction student attitude questionnaire; 3) student information sheet; 4) midterm test; 5) final listening comprehension test and reading test for SPA; 6) teacher background questionnaire and teacher attitude questionnaires (pre- and postinstruction); 7) composite class visit reports; 8) postinstruction student attitude questionnaire; and 9) speaking tests.

Two pathways in the network circumvent event 58 and feed into the critical path at event 63, the beginning of the preparation of the final report. Activity 41-44 is the administration of the implementation questionnaire, and 44-63 is the analysis of the data from this questionnaire. Activity 59-60 represents the development of the questionnaire on the continued use of Spanish programs during the year after the study, followed by the duplication and mailing of the questionnaire, the administration of the questionnaire, i.e., the waiting and reminding necessary to recover a reasonable percentage of a mail questionnaire (in this case 100 percent), and the analysis of the data.[3] The analysis of both the implementation questionnaire and the continued use questionnaire was conducted by hand, rather than having the data punched on cards and machine analyzed. Consequently, event 58, which represents the beginning of the machine analysis of the data punched on cards, was bypassed by the pathways of activities associated with these two questionnaires.

Activity 49-50, represents the hiring of judges for scoring the speaking tests. Then came the training of the judges, the scoring operation itself, and the punching of the score sheets into cards.

Activity 01-04 represents the hiring of the research consultant, as noted previously, and the lines emanating from event 14 represent the development of instruments for the collection of data on the independent variables, including the teacher attitude questionnaire, the student information sheet, the preliminary class visit report form, the teacher background questionnaire, and the implementation questionnaire. These pathways all feed back into the critical path at appropriate points where a particular instrument had to be administered to students.

Two other activities which appear to be dangling are 38-41 and 39-41. These represent the duplication of the postinstruction student and teacher attitude questionnaires respectively. They appear to be dangling because these postinstruction instruments were simply duplicates of the preinstruction instruments, with verb tenses changed where appropriate. Therefore, the duplication of these forms could take place independent of any other activity, assuming they were first used prior to the beginning of instruction. A dummy constraint imposed on the duplication of these instruments was the beginning of the second half of instruction.

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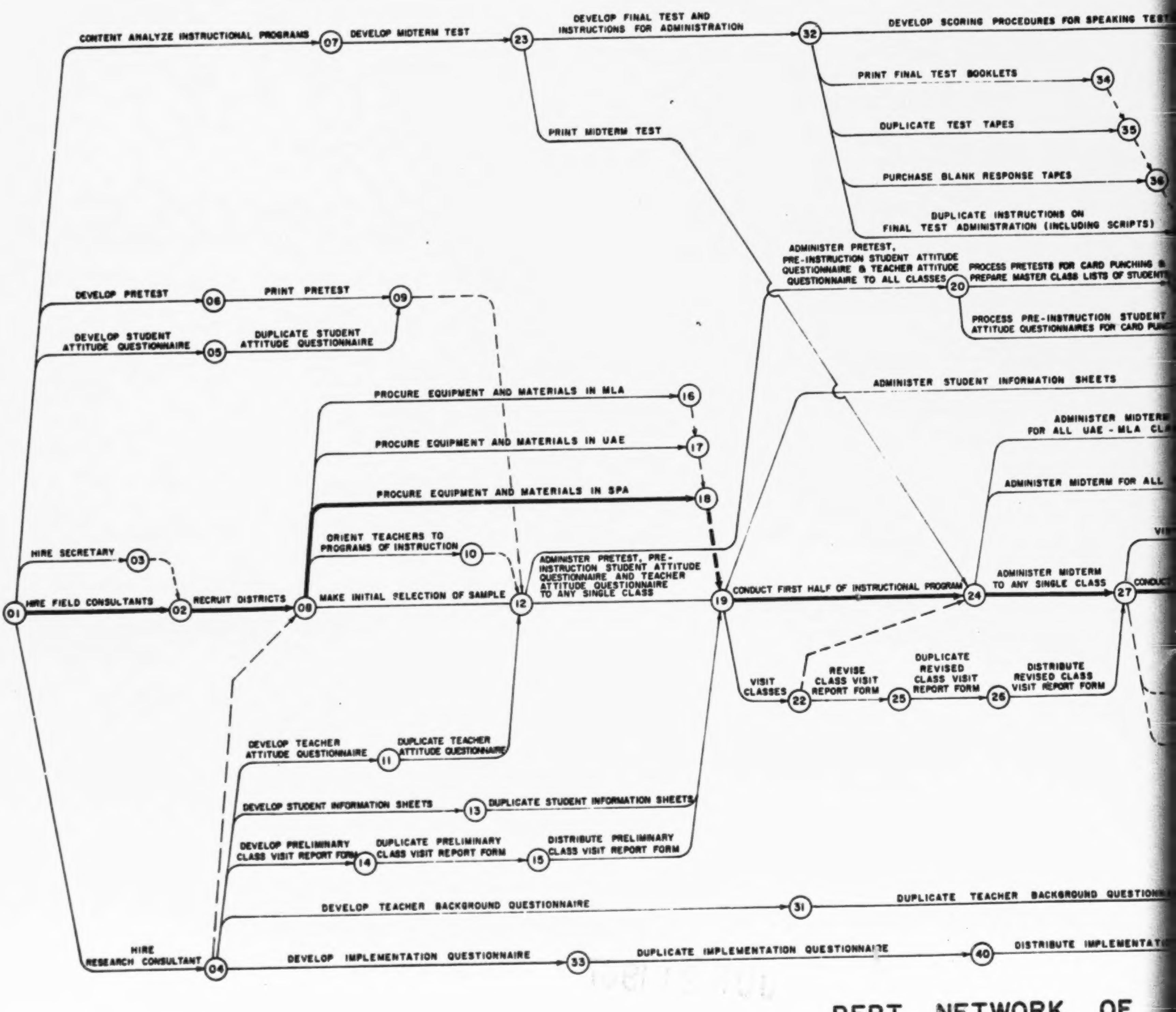
[3] The data from the questionnaire on the continued use of Spanish programs during the year after the study were not included in this report.

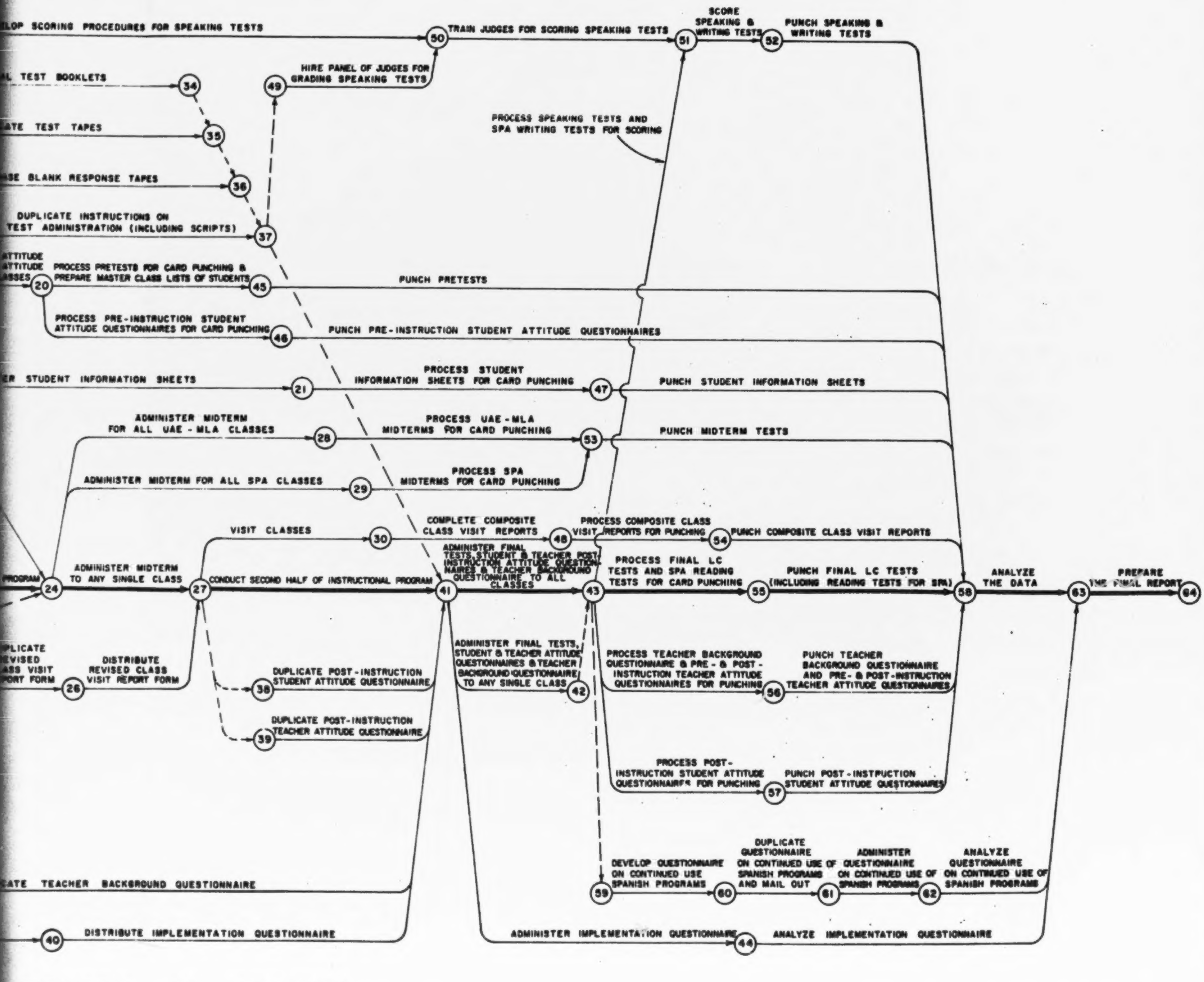
The PERT network for the project includes 82 different activities. Obviously, the identification of activities is a crucial aspect of PERT. It would be quite possible to add still other activities to the network. It might be helpful in some cases to combine activities, without doing damage to the process of task completion, and thereby simplify the network. It might also be helpful to break down some of these activities still further. The PERT analyst must decide what breakdown of work activities is the most useful for the particular project in question. These 82 activities seemed to the project staff to represent a reasonable breakdown of tasks to be performed.

The question naturally arises as to just how useful a PERT network developed in one project may be to another similar project. Naturally, the usefulness of the network to another project depends upon the similarity of circumstances and operating conditions between the two projects. The greater the similarity, the more help a network of this type will be. At the very least, it ought to be suggestive of the many different types of functions that must be considered and the complexity of the system of constraints running through the network.

The time estimates are perhaps the least useful part of the PERT design to another project. Certainly time estimates in the form of man-weeks would be more suggestive than estimates in the form presented here. Yet ultimately another project would be forced to translate man-weeks into something more realistic to whatever situation was encountered. Unfortunately, it is virtually impossible to reconstruct the actual time spent on each activity in the present project. Since PERT was applied to the project after it was half completed, no precise time accounting was kept for individual activities. Nevertheless, it is hoped that the discussion presented here may prove useful in the conduct of other large scale field tests of instructional programs.


CONTENT ANALYZE INSTRUCTIONAL PROGRAMS
07
DEVELOP MIDTERM TEST
23
DEVELOP FINAL TEST AND INSTRUCTIONS FOR ADMINISTRATION
32
DEVELOP SCORING PROCEDURES FOR SPEAKING TEST
PRINT FINAL TEST BOOKLETS
34
DUPLICATE TEST TAPES
35
PURCHASE BLANK RESPONSE TAPES
36
DUPLICATE INSTRUCTIONS ON FINAL TEST ADMINISTRATION (INCLUDING SCRIPTS)
PRINT MIDTERM TEST
ADMINISTER PRETEST, PRE-INSTRUCTION STUDENT ATTITUDE QUESTIONNAIRE & TEACHER ATTITUDE QUESTIONNAIRE TO ALL CLASSES
20
PROCESS PRETESTS FOR CARD PUNCHING & PREPARE MASTER CLASS LISTS OF STUDENTS
PROCESS PRE-INSTRUCTION STUDENT ATTITUDE QUESTIONNAIRES FOR CARD PUNC
DEVELOP PRETEST
06
PRINT PRETEST
09
DEVELOP STUDENT ATTITUDE QUESTIONNAIRE
05
DUPLICATE STUDENT ATTITUDE QUESTIONNAIRE
ADMINISTER STUDENT INFORMATION SHEETS
PROCURE EQUIPMENT AND MATERIALS IN MLA
16
PROCURE EQUIPMENT AND MATERIALS IN UAE
17
PROCURE EQUIPMENT AND MATERIALS IN SPA
18
ADMINISTER MIDTERM FOR ALL UAE - MLA CLA
ADMINISTER MIDTERM FOR ALL
ORIENT TEACHERS TO PROGRAMS OF INSTRUCTION
10
HIRE SECRETARY
03
ADMINISTER PRETEST, PRE-INSTRUCTION STUDENT ATTITUDE QUESTIONNAIRE AND TEACHER ATTITUDE QUESTIONNAIRE TO ANY SINGLE CLASS
01
HIRE FIELD CONSULTANTS
02
RECRUIT DISTRICTS
08
MAKE INITIAL SELECTION OF SAMPLE
12
19
CONDUCT FIRST HALF OF INSTRUCTIONAL PROGRAM
24
ADMINISTER MIDTERM TO ANY SINGLE CLASS
27
CONDUCT
VISIT CLASSES
22
REVISE CLASS VISIT REPORT FORM
25
DUPLICATE REVISED CLASS VISIT REPORT FORM
26
DISTRIBUTE REVISED CLASS VISIT REPORT FORM
DEVELOP TEACHER ATTITUDE QUESTIONNAIRE
11
DUPLICATE TEACHER ATTITUDE QUESTIONNAIRE
DEVELOP STUDENT INFORMATION SHEETS
13
DUPLICATE STUDENT INFORMATION SHEETS
DEVELOP PRELIMINARY CLASS VISIT REPORT FORM
14
DUPLICATE PRELIMINARY CLASS VISIT REPORT FORM
15
DISTRIBUTE PRELIMINARY CLASS VISIT REPORT FORM
DEVELOP TEACHER BACKGROUND QUESTIONNAIRE
31
DUPLICATE TEACHER BACKGROUND QUESTIONN
HIRE RESEARCH CONSULTANT
04
DEVELOP IMPLEMENTATION QUESTIONNAIRE
33
DUPLICATE IMPLEMENTATION QUESTIONNAIRE
40
DISTRIBUTE IMPLEMENTATIO

PERT NETWORK OF


ELOP SCORING PROCEDURES FOR SPEAKING TESTS
50
TRAIN JUDGES FOR SCORING SPEAKING TESTS
51
SCORE SPEAKING & WRITING TESTS
52
PUNCH SPEAKING & WRITING TESTS
AL TEST BOOKLETS
34
49
HIRE PANEL OF JUDGES FOR GRADING SPEAKING TESTS
ATE TEST TAPES
35
PROCESS SPEAKING TESTS AND SPA WRITING TESTS FOR SCORING
ASE BLANK RESPONSE TAPES
36
DUPLICATE INSTRUCTIONS ON TEST ADMINISTRATION (INCLUDING SCRIPTS)
37
ATTITUDE
ATTITUDE
ASSES
20
PROCESS PRETESTS FOR CARD PUNCHING & PREPARE MASTER CLASS LISTS OF STUDENTS
45
PUNCH PRETESTS
PROCESS PRE-INSTRUCTION STUDENT ATTITUDE QUESTIONNAIRES FOR CARD PUNCHING
46
PUNCH PRE-INSTRUCTION STUDENT ATTITUDE QUESTIONNAIRES
ER STUDENT INFORMATION SHEETS
21
PROCESS STUDENT INFORMATION SHEETS FOR CARD PUNCHING
47
PUNCH STUDENT INFORMATION SHEETS
ADMINISTER MIDTERM FOR ALL UAE - MLA CLASSES
28
PROCESS UAE - MLA MIDTERMS FOR CARD PUNCHING
53
PUNCH MIDTERM TESTS
ADMINISTER MIDTERM FOR ALL SPA CLASSES
29
PROCESS SPA MIDTERMS FOR CARD PUNCHING
VISIT CLASSES
30
COMPLETE COMPOSITE CLASS VISIT REPORTS
48
PROCESS COMPOSITE CLASS VISIT REPORTS FOR PUNCHING
54
PUNCH COMPOSITE CLASS VISIT REPORTS
PROGRAM
24
ADMINISTER MIDTERM TO ANY SINGLE CLASS
27
CONDUCT SECOND HALF OF INSTRUCTIONAL PROGRAM
41
ADMINISTER FINAL TESTS, STUDENT & TEACHER POST-INSTRUCTION ATTITUDE QUESTIONNAIRES & TEACHER BACKGROUND QUESTIONNAIRE TO ALL CLASSES
43
PROCESS FINAL LC TESTS AND SPA READING TESTS FOR CARD PUNCHING
55
PUNCH FINAL LC TESTS (INCLUDING READING TESTS FOR SPA)
58
ANALYZE THE DATA
63
PREPARE THE FINAL REPORT
64
PLICATE EVISED ASS VISIT PORT FORM
26
DISTRIBUTE REVISED CLASS VISIT REPORT FORM
38
DUPLICATE POST-INSTRUCTION STUDENT ATTITUDE QUESTIONNAIRE
39
DUPLICATE POST-INSTRUCTION TEACHER ATTITUDE QUESTIONNAIRE
ADMINISTER FINAL TESTS, STUDENT & TEACHER ATTITUDE QUESTIONNAIRES & TEACHER BACKGROUND QUESTIONNAIRE TO ANY SINGLE CLASS
42
PROCESS TEACHER BACKGROUND QUESTIONNAIRE & PRE - & POST - INSTRUCTION TEACHER ATTITUDE QUESTIONNAIRES FOR PUNCHING
56
PUNCH TEACHER BACKGROUND QUESTIONNAIRE AND PRE- & POST-INSTRUCTION TEACHER ATTITUDE QUESTIONNAIRES
PROCESS POST-INSTRUCTION STUDENT ATTITUDE QUESTIONNAIRES FOR PUNCHING
57
PUNCH POST-INSTRUCTION STUDENT ATTITUDE QUESTIONNAIRES
59
DEVELOP QUESTIONNAIRE ON CONTINUED USE SPANISH PROGRAMS
60
DUPLICATE QUESTIONNAIRE ON CONTINUED USE OF SPANISH PROGRAMS AND MAIL OUT
61
ADMINISTER QUESTIONNAIRE ON CONTINUED USE OF SPANISH PROGRAMS
62
ANALYZE QUESTIONNAIRE ON CONTINUED USE OF SPANISH PROGRAMS
CATE TEACHER BACKGROUND QUESTIONNAIRE
40
DISTRIBUTE IMPLEMENTATION QUESTIONNAIRE
ADMINISTER IMPLEMENTATION QUESTIONNAIRE
44
ANALYZE IMPLEMENTATION QUESTIONNAIRE

NETWORK OF PROJECT